UNIVERSITY OF GLASGOW.

Lectures

ON THE

STRUCTURE AND RELATIONS

OF THE

NERVOUS SYSTEM AT THE PERIPHERY,

INCLUDING THE

NEUROLOGY OF THE ORGANS OF SPECIAL SENSE.

Delivered at the University of Glasgow,

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LECTURE VI.

(c) *The terminal expansion of the olfactory nerve.*—The peripheral expansion of the olfactory nerve is confined to a portion of the mucous membrane known as the Schneiderian membrane, lining the nasal cavity. This olfactory tract, *regio olfactoria*, occupies only the roof and uppermost part of the septum and walls of the nasal fossa, as far down as the middle turbinate bone. According to Kölliker, it extends from ½" to 1" downwards from the cribriform plate of the ethmoid, and he says that a very distinct sinuous line of demarcation may be observed marking the limits of the olfactory tract on the nasal mucous membrane. The other cavities lined by the Schneiderian membrane, it must be remembered, are subservient to the respiratory function. Inasmuch, however, as the sense of smell depends, amongst other conditions, upon the existence of certain currents of air capable of carrying the odorous particles up to the olfactory region, for the production of which currents an apparatus of a mechanical or physical nature is rendered necessary, the whole nasal organ must be looked upon as furnishing the third or mechanical element in this nerve-organ of special sense. The inferior turbinate bone has a most important, nay, even essential, share in this action; for, on its removal by disease or otherwise, the currents are apparently so affected in nature or direction as in some cases to destroy the sense of smell completely. Professor Goodsir thinks this turbinate bone acts by *raising* the temperature of the atmospheric currents passing through it to the olfactory region, for during respiration it is apparently elevated along with the nostril. The olfactory portion of the Schneiderian membrane is extremely delicate and soft, and can be distinguished from the adjacent portion of the mucous surface by its greater thickness, and glistening, yellowish appearance, and especially by the absence of the cilia which cover the rest of the membrane. Its structure, on examination under the microscope, is found to be traversed by mucous glands (Bowman's), of the simple type, situated vertically to the surface. These glands are so numerous as to give a columnar appearance to the membrane on section. The contiguous mucous surface, on the other hand, has very few of these glands. The epithelium of this olfactory tract, besides being non-ciliated, has peculiar characters. It is arranged in several layers, the superficial being distinctly cylindrical, according to Kölliker; although the other strata are more or less spheroidal, as Todd and Bowman, and Professor Goodsir hold the entire epithelial structure of this layer to be. These epithelial cells have remarkably delicate walls, for on the addition of water to the preparation their walls immediately give way. The entire membrane in question is also extremely vascular. The capillaries, according to Goodsir, extend immediately under the epithelium. Nervous plexuses of great density are also very well marked in the submucous tissue.

With respect to the ultimate nervous distribution our knowledge is very uncertain. Each olfactory nerve, after traversing the cribriform lamella, enters the nasal cavity in three divisions—one for the roof of the nasal fossa, another for the upper part of the septum, and a third for a corresponding part of the external wall of the cavity. Its fibres have double contours, and medullary sheaths, and do not seem, in the first part of their course at least, to present the great differences in external characters from the other nerves of special sense, described by Valentin. In their farther course in the mucous membrane they gradually become pale, lose their medullary sheaths, become flattened, and present nuclei at intervals. In consequence of the difficulty of following the fibres of the olfactory nerve in the granular and deeply-epitheliated lining of the nasal cavity, on account of their presenting such peculiar external characters, and also from their great tendency to putrefactive changes, the particular manner in which they terminate is still very obscure. A papillary termination of the olfactory fibrils was described by Treviranus. Club-like bodies were professed to have been discovered by Ehrenberg in the Schneiderian membrane, which he connected with the ends of the nerve-fibres. Dr. Horn* declares having seen the olfactory nerve-fibres of the frog terminate in loops. Kölliker describes a gradual attenuation of the fibres, caused by their branching, and also a plexiform arrangement, from which he was unable to trace any of the fibrils. He saw none of the ganglionic vesicles which Valentin affirmed as existing in great numbers in close connexion with the delicate terminal plexus, though, arguing from analogy, something of this nature might be expected on the peripheral expansion of a nerve of special sense. Todd and Bowman have not observed divisions of the fibres, nor have they succeeded in tracing any of the fibres to an end. But from such meagre and unsatisfactory accounts we turn with much pleasure to the researches of Eckhard of Giessen, into the structure of the peripheral expansion of the olfactory nerve; and as his observations are so very remarkable and original, and his hypothesis as to the nature of peripheral connexions of the olfactory nerve-fibres so very much borne out by them, as well as being in every way consistent with all our present knowledge of the ultimate disposition and relations of the nervous elements in a peripheral organ of special sense, I shall here take the liberty of inserting a brief abstract of his essay.

Eckhard† states that he has confirmed the recent observations of Kölliker, as to the occurrence in man of ciliated epithelium in those portions of the Schneiderian membrane corresponding to the distribution of the olfactory nerve (regio olfactoria). This description of the olfactory epithelium is quite opposed to the original observations of Kölliker, and it is also opposed to the views of Goodsir and Todd and Bowman, who describe the epithelium of this region as being spheroidal and destitute of cilia. The cilia differ from those of the surrounding membrane, in that the individual cilia are very long, and so exceedingly delicate as only to be visible with instruments of high power. The cilia are generally the same length, or twice as long as the cell to which they are attached. Eckhard always found the extent of this ciliated epithelium to correspond to limits of the expansion of the olfactory nerve-fibres, so far at least as he could trace them. On preparing the membrane properly, two layers can be recognised—an under fibrous layer, and an upper epithelial. Between both, and in the upper portions of the former, are numerous vessels and the larger branches of the olfactory nerve.

I. In the fibrous or deeper layer are also numerous corpuscula, with long and many very delicate processes; but their connexion with filaments of the olfactory nerve could not be exactly ascertained. Eckhard thinks, however, they are the ganglionic globules, as particularly described by Valentin,‡ though, as he says, possibly other histologists may call them connective-tissue corpuscles.

II. The epithelial layer consists of—1st, an upper cell layer; and 2nd, a deeper layer of granules. (*a*) The cells of the upper layer may be seen to have prolonged from their attached or proximal end a long binding fibre of variable length (some from 0·07 to 0·09 mm. in length), sometimes ending in two or more extremely fine points, or connected with a nucleus or granular body; between these were the fibre-bearing cells. (*b*) In addition to these cell-fibres, there are other finer fibres, more distinctly connected towards one extremity with a nucleus, the other being merely attached to, not continuous with, the end of a fibre-bearing cell. From the density of the deeper layer, it is not possible to discover whether there is not also

* Müller's Archives, 1850.

† Beiträge fur Anat. und Phys., v. Eckhard en Giessen, 1855 p. 79.

‡ Traité de Névrologie, p. 270.

free nuclei. (c) Other club-shaped bodies, with pedicles, were also discovered, but were strongly suspected to be glands with their ducts running to the surface.

The nerve-fibres with cellular investment, unlike other primitive fibres, form together a granular, grey, striped mass, with nuclei. They ramify in the membrane, the branches forming loopings, (believed by Dr. Horn to be terminal,) the filaments ultimately breaking up into brush-like expansions, as first observed by Hessling. From these observations he formed the hypothesis:—"The epithelium cells, or the suddenly terminating fibres in relation with them, are the true terminations of the olfactory nerves." And this is rendered still farther probable from analogy with what is seen in the eye and ear, and also from his having actually traced the finer filaments of the olfactory nerve, in quite fresh transverse sections, ascending towards the epithelial layer, as well as in preparations treated with solution of chromate of potash. After teazing out the epithelium, he observed, in some instances, fibres losing themselves in the processes of epithelial cells, which bore the greatest resemblance to the ultimate ramifications of the olfactory nerve. The spreading of the filaments towards the epithelium is particularly distinct in fine transverse sections treated with creasote. Again, the brush-like expansion of the filaments already described, points to such a terminal connexion. And, again, it is remarkable that in all the examinations made, no other form of final termination was presented, which, if such really existed, would surely have been observed, since there is such a rich ultimate distribution within so limited a space as the regio olfactoria. Certain physiological and pathological conditions also support such a view—1st, the exceeding rapidity with which the impression of smell follows the application of the finest odorous particle to the epithelium; and, 2nd, the great impairment to the sense of smell, which follows even a slight lesion of that structure.

In my last lecture I described to you the observations of Bilroth, as to the probable existence of an intimate connexion between the ciliated epithelial cells of the papillæ of the tongue and the terminations of the fibrils of the nerves of taste. In the descriptions here given by Eckhard of the ultimate connexions of the olfactory nerve-filaments, there is an approach at least towards determining the existence of those special structures which Goodsir remarked, previous to the publication of Eckhard's essay, would most probably be found as peripheral appendages to the olfactory nerve-fibres, similar to those already isolated, and recognised in the terminal expansions of the optic, auditory, and tactile nerves, and only requiring to be demonstrated here, and in the tongue, in connexion with the terminal expansion of the gustatory nerve, to establish the general law of the occurrence of such apparatus as special appendages to the nervous periphery, in all parts of it where a particular exaltation of the sensory function is demanded. For one nerve does not differ from another as to the nature of the impressions it is capable of conducting; they can merely propagate a force or movement along their fibres. The character of this force or current must therefore entirely depend upon the peripheral apparatus attached to the fibres in which it is initiated, and the nature of the sensation upon the central organ in which they end, and where the said force or current is interpreted.

(*d*) *Peripheral expansion of the auditory nerve.*—The ear, or organ of hearing, in man and the higher animals, is a very complex and elaborate apparatus, which, from the nature of its anatomical structures, furnishes in the highest degree the acoustic conditions necessary for receiving and propagating those vibrating movements which are interpreted in the sensorium as sound. It consists of an apparatus for collecting and conducting the vibrations to the internal ear, in which we find very remarkable structural arrangements in connexion with the terminal expansion of the auditory nerve. The internal ear is situated in the petrous portion of the temporal bone, in which there are two principal cavities—the vestibule and cochlea. It will not, however, be necessary to describe their general anatomical structure and relations, as you are already familiar with them; so that I shall therefore limit my description to those portions of them in more immediate connexion with the nervous elements.

In its course towards its peripheral termination, the auditory nerve presents, at frequent intervals, numerous ganglionic cells amongst its fibres, as has been described by Papenheim,* Corti, Kölliker, and Stannius. Divisions of the ultimate branches of the fibres have also been observed by Kölliker, Harless, and Czermak in vestibular nerves of the sturgeon and frog. Valentin, Breschet,† Burdach, Krause, Hannover, Wagner, and others, have described looped terminations of the nerve-fibres both in the cochlea and membranous walls of the labyrinth. It was from his observations of the free terminations of the cochlear nerves that Müller grounded the objection to the general doctrine of *terminal loops*. Treviranus described a papillary termination of the fibres not only in the retina, but also in the auditory and olfactory nerves; but though right in the main, it was in all probability not the terminations of the nerve-fibres they observed, but certain structures, which I shall describe to you, appended to the ends of the nerve-fibres in the retina, and other forms of which I shall presently mention in connexion with the nerve-endings in the cochlea. In studying the terminal relations of the auditory nerve, it will be necessary to consider the vestibular and cochlear divisions of it separately.

The vestibular nerves.—After entering that cavity through certain minute apertures in its osseous walls (the cribriform plate), they are distributed to the semicircular canals, and the ventriculus and sacculus. The ampullæ of the semicircular canals are the only parts of them to which nerves have been traced. According to Steifensand,* they enter the hollow side of the cavity in a fold or duplicature of its wall, which appears as a transverse projection extending one-third of its extent, when viewed from within. Wagner† describes the fibres as ending in loops, an arrangement which he saw with great distinctness in the ray and other osseous fishes. Todd and Bowman confirmed this opinion generally, although they had seen free terminations distinctly as well as loops in the cod. In the utriculus and sacculus, the nerve-fibres, after penetrating the membranous walls, diverge, some passing to the calcareous particles, where they terminate in free extremities, without losing their medullary investment (though, from the latter circumstance, it is probable that they have a farther course), while the others, after radiating for some distance in the interior of the cavity, come in contact with a layer of dark nucleated cells, and there losing their medullary sheath, are supposed by Todd and Bowman, and Sharpey, to form a fine expansion of nervous substance, which they are disposed to consider analogous to the retina; and Wagner, also, more recently alludes to the resemblance. Goodsir has described the vestibular filaments, both in the ampullæ and vesicles, as forming a species of looped terminal plexuses, and becoming continuous with the bipolar nerve-cells, from which, in the utriculus and sacculus, one set of fibres were continued to the otoliths, amongst which they end by free terminations, the calcareous particles appearing suspended amongst them, while other fibres passed away to end in unipolar ganglionic cells, the latter being, as Wagner says, attached like pears on their stalk. The correctness of this latter connexion, however, is not so certain. Wagner‡ has also observed a very similar arrangement to that described by Goodsir. He also describes numerous divisions of the double contoured fibres, which become ultimately pale and very minute, and he has observed ganglionic cells inserted at intervals on the nerve-fibres previous to their entering the vestibule.

The lamina spiralis.—Before following the cochlear nerves to their termination, we shall examine certain structures comprehended in the term lamina spiralis, with which they have a peculiar and ultimate relation. For our present knowledge of this subject we are entirely indebted to Corti, of Turin,§ whose researches were made chiefly on the lower animals; to Kölliker,‖ who examined the same parts in man; and to Professor Goodsir,¶ whose description I have for the most part followed, and whose nomenclature I have also adopted. This structure, contained in the cavity of the cochlea, is invested with a slightly modified extension of the epithelium, covering the periosteal lining of the scalæ. The lamina spiralis is partly osseous and partly membranous, and stretches from the modiolus to the wall of the cochlea, and is attached to these respectively by the margins of its osseous and membranous zones. The osseous zone is separated into two laminæ by a number of plexiform canals, which end anteriorly in a groove or fissure, bounded superiorly and inferiorly by the free margins of the laminæ. These canals contain the cochlear nerves, and also the capillary vessels, the latter of which are chiefly remarkable from their minute size, as compared with the bony canals containing them. The membranous zone is a fine transparent membrane, which is attached by its internal concave margin to the superior or vesti-

* And also Valentin, Krause, Soëmmering; Wagner's Physiol., by Willis, p. 553; Valentin, Traité de Névrol., p. 438.

† Recherch. sur l'Organe de l'Ouie, 1840.

* Müller's Arch., 1835.

† Canstatt's Jahrsbericht, 1847, p. 64.

‡ Nevrol. Untersuch., p. 143.

§ Corti, Recherches sur l'Organe de l'Ouie des Mammifères, 1851; première partie, Limaçon: voir Wissensch. Zool. v. Kölliker und Liebold, bd. iii. hft. i., 1851.

‖ Kölliker's Human Histology, and Micros. Anat. Claudius in Zeitschrift, f. w. Zool. 1855, 7th part, p. 154.

¶ Paper on the Lamina Spiralis, in the Monthly Med. Jour., Dec. 1855.

bular lip of the osseous zone, and by the external and convex it is connected with the wall of the cochlea, by means of a process of semi-transparent tissue, which springs from a very minute osseous ridge—the lamina spiralis accessoria of Huschke. This connecting structure, first noticed by Breschet, is described by Todd and Bowman as the cochlearis muscle; but it is more probably a fibrous structure, in accordance with which view Kölliker has named it the ligamentum spiralis. It has a columnar appearance, with numerous foramina, through which vessels pass to the external portion of the lamina. Corti describes the membranous lamina as commencing with the osseous lamina in the vestibule, where it is continuous with the periosteum lining the cavity of the labyrinth, of which tissue, therefore, he regards it as a modification, occurring however somewhat abruptly. The smooth surface of this membranous zone is interrupted by a central tract distinguished from the lateral belts by presenting a series of well-marked lines radiating from the modiolus—hence this membrane has received the name of the *zona pectinata*,—and is of a fibrous nature. Corti, however, describes the most external tract of the membranous lamina, at its insertion into the cochlear wall, as the zona pectinata, the internal being the zona denticulata, including the habenula sulcata and habenula denticulata, to be presently described. On the vestibular surface of the lamina spiralis thus constituted, are situated certain structures to which we shall now attend.

1. *The Habenula sulcata*, first described by Todd and Bowman, is a lamina composed of wedge-like or conical branching columns, and gradually increasing in thickness, from the inner to the outer margin, the former of which is set perpendicularly on the osseous zone, while the latter, having a regularly serrated conformation, projects for a short distance beyond the osseous zone, so as to form the sulcus s. semicunalis spiralis of Huschke. It is cartilaginous in texture, and glistening in appearance. The free margin has, as already alluded to, a denticulated structure, so as to constitute what are termed *the teeth of the first range;* and between the columns prolonged inwards from these teeth clear nuclei are found arranged in rows. This is the "*Bandelette silonei*" of Corti, who describes it as a part of the membranous lamina, but continuous with or derived from the periosteum of the osseous zone, and separated from the zona pectinata by the next tract of the lamina spiralis.

2. *The Habenula denticulata*, the "*Bandelette externe ou dentelle*" of Corti, and placed, according to him, between the habenula sulcata and the zona pectinata, is situated on the membranous zone, and consists of a system of jointed rods or cylinders, radiating from the axis of the cochlea. Corti and Huschke describe it as being derived from the habenula sulcata, the face or external convex edge of which separates into two lips or laminæ, the upper edge of which forms the extremities of the "*teeth of the first range*,"—the lower continued outwards to form the habenula denticulata. These cylinders are somewhat compressed in form, and are arranged in three parallel series of segments. The first series is situated in the sulcus spiralis; the rods composing it are very indistinctly cylindrical, and are separated by minute spaces: they constitute the "*dents apparents*" of Corti. Radiating from or from between, according to Goodsir and Kölliker, the *dents apparents* in equal number, are the "*teeth of the second series.*" They are attached by their internal extremities, which are somewhat expanded to the distal terminations of the cochlear nerve-fibres, as first pointed out by Kölliker. Connected to these last by two short quadrilateral segments, the "*coins articulaires*" of Corti, are the terminal series of rods. They are compressed and elongated, and bear on their upper surface, attached by peduncles, three pyriform nucleated bodies with nucleoli, which have an imbricated arrangement from within outwards. These bodies are termed by Kölliker "*teeth of the third series*," and by Corti are considered to be merely cells of cylindrical epithelium. They both describe the terminal cylinders as having free bifurcated extremities externally; but Claudius has found them attached to the membranous zone by dilated extremities, and consequently incapable of the degree of motion Corti believed them to possess. Claudius also believes these rods for the most part of their course to be hollow tubes. Reviewing the parts above described, Goodsir considers, from the position and relations of the *dents apparents*, that they belong more to the habenula sulcata than to the habenula denticulata, and regards the latter as consisting only of two segments—viz., the "*teeth of the second order*," and the "*terminal series of rods*," connected by the coins articulaires. A delicate homogeneous membrane, covered with the epithelium of the labyrinth, was described by Corti as extending from the upper surface of the habenula sulcata over the habenula denticulata, and separated from the dents apparents by large, clear vesicles, filled with nuclei, which also occupy the sulcus spiralis. This membrane of Corti has been traced out to the wall of the cochlea by Claudius, who also found the whole space between it and the deeper structures occupied by a complete stratum of these nucleated vesicles, from 0·006‴ to 0·009‴ in diameter. The entire membranous zone of the spiral laminæ is not therefore a simple partition in the cochlea, on the superior or vestibular aspect of which the apparatus of Corti is placed, but it is a double structure, enclosing a spiral cavity, running parallel, like another scala, between those of the vestibule and tympanum, from which it is completely separated; and in this space the organ of Corti is found. Claudius* terms this superior membrane the membrane of Corti, and the original membrane the "*membrana basilaris.*"

The cochlear nerves, after perforating the perpendicular plate closing in the internal auditory meatus, ascend within the columella or modiolus, and give off filaments in a spiral order, which there form a very close plexus, their fibres becoming continuous towards the free margin of the lamina with oval bipolar ganglion cells. These occur with such regularity that Corti styles them "*La bandelette ganglionaire.*" After passing through these, they assume a plexiform arrangement. Todd and Bowman, however, deny the existence of this ganglionic connexion altogether. Beyond the marginal fissure of the osseous zone the nerve-fibres gradually become individualized, and ascending, perforate the inner attachment of the zona pectinata somewhat obliquely, and finally become connected with the inner expanded extremities of the rods of the second series, which, as before described, lie between the outer ends of the dents apparents. This important connexion of the nerve-fibres and the rods was discovered by Kölliker. Todd and Bowman describe the medullary sheath of the nerve-tubules as being persistent throughout, but Corti saw single contours. The latter could not discover any divisions of the fibres, but he remarked an attenuation toward their distal extremity. With respect to the function served by the rods of Corti, Kölliker, believing them to be like the rods and cones of the retina, true nervous structures, in fact, the terminations of the cochlear nerve-fibres, supposes that they are capable of distinguishing varieties of sound. Corti, Claudius, and Goodsir, however, from their peculiar compressed and articulated arrangement, the alternation of their extremities, and their elasticity, though slight, consider them not to be composed of nervous tissue, but to constitute an acoustic apparatus of a purely physical nature. They are members of the same class of special structures developed in connexion with the peripheral expansion of the nerves of special sense, which I have described in the retina as the rods and cones and their appendages, and in the tactile papillæ as corpuscula tactûs. Corti considers them as a development from the tissue of the membranous lamina, but is silent as to their particular function. Goodsir is of opinion that while the vestibule and semicircular canals, as shown by comparative anatomy (for they represent the entire organ in the lower forms), receive the vibrations of the air, as sound, irrespective of pitch or harmony, in the cochlea, by virtue of a certain adaptation and arrangement, each rod, or it may be, set of rods, is capable of receiving impressions from sonorous vibrations of a particular value only, and so communicate impressions of a corresponding value to the extremity of the nerve-fibre with which they are in contact. But we must recollect that sound has not existence, nor is it produced as such in this acoustic apparatus, but it is merely the form in which the consciousness interprets the sensations resulting from the vibratory impulses conveyed along the nerve-fibres to the nervous centres.

At our next meeting I shall take up the subject of the retina, or the peripheral expansion of the optic nerve, with its appended structures, which will conclude the subject of the neurology of the organs of special sense.

* Zeitschrift, f. w. Zool., 1855, part vii., p. 154.

BRITISH MEDICAL ASSOCIATION.—At the last quarterly meeting of the Bath and Bristol branch of this Association, it was resolved that an inquiry should be set on foot with reference to Diphtheria. The following queries were put to members, and answers requested: 1st, Number of cases, age, sex, and general condition of patients; 2nd, Condition of throat, especially as regards the presence of false membrane; 3rd, Mode of treatment, local and general; 4th, Number of deaths; 5th, Cause of death in fatal cases; 6th, Post-mortem appearances; 7th, General remarks.—At the same meeting, it was resolved, —"That it is desirable that a general meeting of the profession of this district be called, to take into consideration the propriety of forming a Local Medical Registration Society, for looking after the general welfare of the profession."

INTESTINAL FEVER.

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"If it were asked 'What is the cause of the jail fever?' it would, in general, be readily replied, 'The want of fresh air and cleanliness.' But as I have found in some prisons abroad cells and dungeons as offensive as any I have observed in this country, where, however, this distemper is unknown, I have been obliged to look out for some additional cause of its production."—HOWARD.

No. III.

MODE OF PROPAGATION; RELATION TO DEFECTIVE SEWERAGE.

IN my last communication, (THE LANCET, Aug. 27th,) I entered into considerations to show that the disease of the intestinal follicles, which is the one anatomical mark of the malady before us, is, in reality, the *specific eruption of a contagious fever;* and that, on pathological grounds, the exuviæ from the intestinal surface should be the most infectious of all the emanations from the sick. It was further pointed out, in the same communication, that every year, in England alone, from a hundred to a hundred and fifty thousand intestines affected with this eruption continue, each for a period varying from a week to a fortnight, or more, to discharge these exuviæ in a liquid form upon the ground.

In order to complete the case which it is the object of these papers to establish, all that is necessary, therefore, is to show (1st) that the sewers and other places into which all this virus passes are the principal channels through which this fever is propagated; and (2ndly) that they owe this faculty simply and solely to the specific infection which they are thus constantly receiving.

In an inquiry so complex as that must necessarily be which deals with the dissemination of a disease whose physical cause is invisible, the only possible way of arriving at truth is to proceed step by step. To obtain evidence at all, where so subtle an agent is in question—or, at least, evidence sufficiently precise for scientific uses—is not the least difficulty. The origin of a thing that is not even an object of sense, but is only known by its effects, must needs be hard to trace. To seize upon every fact that may serve as a guiding thread—first, to establish its reality, and then, if we can, to pass on to its interpretation—is the only true method in such a case. Happily, we are not left without facts eminently calculated to give the guidance of which we stand in need. One such we have already met with. In a former paper, I have shown by the most decisive evidence, what had often been shown before, that intestinal fever is a *contagious* fever. We have now to note another fact, only second to this in importance—subordinate to it, as I shall endeavour to show, but not less sure. We have already traced the fever poison to the infected body of the fever patient, we shall now detect its presence in the sewer.

That intestinal fever is actually caused by a poison, whatever its origin, which sewers and other cloacæ often contain or carry, is a proposition which no English physician will dispute. It is a proposition the truth of which needs no new demonstration. Evidence of it, universally accepted as conclusive, is already before the public, and has even become a part of familiar knowledge. The following passage from the First Quarterly Report of the Registrar-General for 1854 represents very well the common opinion on the subject, and conveys at the same time a warning which may not be without its use in other ways:—

"The registrar of Shipley, Bradford, ascribes the excess of deaths in his sub-district, to an epidemic fever, which has prevailed to an alarming extent throughout the quarter. The medical men, he says, in the district ascribe so much sickness and death to the general system of sewerage now being carried out under the Health of Towns Act, by which old drains are disturbed which have not been opened for generations."

In another Report from the same series, a very fatal outbreak of fever at Martock, in Somersetshire, is attributed to an open ditch, which served as cesspool to a row of cottages in which alone the fever prevailed. Cases like these, however, although they may furnish grounds for popular belief, are too vague to serve as scientific data. The three following instances, which have all come directly or indirectly within my own knowledge, are more precise, and, even were there no other evidence to the same effect, would be sufficient to decide the point.

In the autumn of 1850, a common sewer was opened in the back premises of a house in Bedminster without any precautions being taken. The inmates of the house were, for the time, quite overpowered by the stench. Four of them began to droop at once, and, at the end of a week, were all laid up with intestinal fever.*

In this case, the fever was communicated by tainted air. In the two following, it arose from the use of poisoned water:—

Near Lawford's-gate, in this city, there is a row of fifteen small houses, known by the name of Abbotsham-place. Four of them, which are the property of one landlord, draw their drinking water from a common well. On a particular day in the first week of November, 1856, the water from this well suddenly acquired a taste and smell which left no doubt that it had become tainted with sewage. The degree of foulness differed somewhat in the different houses, in accordance, it was supposed, with the greater or less proximity of the mouths of the pipes which fed their respective pumps, to the source of pollution.

In No. 15 it was so bad from the first that the inmates were obliged at once to obtain their supplies elsewhere. The inhabitants of the three other houses continued to drink their pump water for some days longer, until it became so disgusting that they too were compelled to relinquish its use.

The well itself was close to the partition wall which divided two of the four houses, numbered respectively 13 and 14. In No. 13, there was a single case of fever in the last week of October. Whether or not this case was the source of the specific poison from which the others sprang, we need not now inquire. All that I have now in view is to cite evidence to show that intestinal fever may be actually caused by a poison which sometimes exists in sewage. For this the facts that followed are pretty decisive.

It has already been stated, that the water did not become tainted, at any rate in a degree to attract the attention of those who drank it, until the first week in November.

On the 13th of the same month, Mrs. R——, the mother of the family who lived in No. 14, was laid up with intestinal fever, of which she died on the 4th of December following. Within a day or two of her own attack, three of her children, who had been already drooping for a week or ten days, were in bed with the same fever. When the children were laid up, Mrs. R—— told her medical attendant that she believed the illness of the family was due to the poisonous state of their drinking water, and that she felt sure the house drain had broken into the well.

Simultaneously with the occurrence of these four cases, there were two cases of the same fever in No. 13, and two in No. 12. The family who lived in No. 15, and who did not drink from the poisoned well, continued to enjoy perfect health. The three families that suffered had held no personal intercourse with one another, and there were at the time no other cases of fever in Abbotsham-place.

Early in December, I visited the R—— family, in company with my friend, Mr. Smith, of Brunswick-square, who was in attendance on them, when, through his kindness, I had an opportunity of verifying his diagnosis, as well as the other circumstances here related.

In the remaining instance the facts were on a still larger scale, and, if possible, even more conclusive. The outbreak of fever to which they refer occurred in Richmond-terrace, Clifton, in the autumn of 1847, and acquired great notoriety at the time, on account of the suddenness, extent, and severity of the visitation. The terrace in question is built somewhat in the form of a horse-shoe, and consists of thirty-four houses of a good class, occupied by persons in a genteel rank of life. At the end of the terrace there is a pump, from which, at that date, the inhabitants of thirteen houses drew their drinking water. In the latter end of September it became evident that this water was tainted with sewage. The fact first made itself known by a characteristic taste and smell in the water, and was afterwards further verified by an examination of the well and discovery of the actual leakage. Early in October, inte-

* An outbreak originating in the same way, but on a much larger scale, occurred in Westminster, in Passion week, 1848, in a group of houses belonging to the Chapter. In Westminster School the disease afterwards spread so much that it became necessary to disperse the boys.—*Vide* "Third Report of the Metropolitan Sanitary Commission," 1848.

tinal fever broke out nearly at once in all the thirteen houses in which the tainted water had been drunk. In almost every house of the thirteen, two or three persons were laid up, and in some a much larger number. Amongst others, the case of a school for young ladies was very striking. The first to suffer in the school was the lady of the house. She was taken ill on the first Monday in the month. Four of her pupils were seized on the following day; and before the end of the week, the mistress, six school girls, and two maid-servants, were all in bed with intestinal fever. In the beginning of the week following, two more were added to the list. Three children who were sent home on the first outbreak of the disorder, and three others who remained at the school, were the only persons who escaped.

The houses in which the same specific fever thus simultaneously broke out on so large a scale were many of them far apart in the length of the terrace, and their inmates were, for the most part, not in the habit of personal intercourse. The other families on the terrace, *living side by side with these*, continued all the while to be perfectly free from fever. The only important circumstance in which those who suffered so severely differed from those who did not suffer at all, was that the former had drunk of the tainted well, and the latter had not.

Only a few doors from the school already mentioned there was another girls' school, with about the same number of pupils. In all that related to their internal economy the two schools were exactly alike; but while, in the one, eleven persons out of seventeen were struck down with fever, in the other there was not a single case. The one was supplied with drinking water from the poisoned well, the other from an entirely different source. The circumstances gave to the contrast, here, all the force of an experiment. In complex questions it is not often, indeed, that even experiment yields results so clear and precise.

Amongst the sufferers at Richmond-terrace were nine servants, who were removed to the Bristol Infirmary soon after being attacked. To make the case complete, I have only to add that all nine presented in full development the diagnostic marks of intestinal fever. Two of the number, who were my own patients, offered perfectly typical specimens of the disorder. In two others, who died, the small intestine was crowded with the ulcerations which are characteristic of the disease.*

(To be concluded.)

REPORTS OF THREE CASES

ILLUSTRATIVE OF

THE GOOD EFFECTS OF PRESSURE IN STRUMOUS SYNOVITIS.

By R. BARWELL, Esq., F.R.C.S.,

ASSISTANT-SURGEON TO CHARING-CROSS HOSPITAL.

It was, I believe, Dr. Scott, of Bromley, who first used pressure by means of strapping plaster in strumous joint cases. The practice has from some cause gradually declined, and now it is seldom that the plan of treatment is to be seen in our metropolitan hospitals; yet it is very advantageous, often gives the patient great relief, and sometimes does more towards subduing the remnants of unhealthy inflammation than any other plan with which I am acquainted. In illustration of these facts, the following cases may be cited:—

I was asked on the 4th of August, 1858, to see C. E——, a young lady, aged ten, on account of a swelling of the right knee-joint. She is rather tall for her age, pale, with long, thick, dark eyelashes and blue eyes; thin, well-formed lips, and the nasal cartilages sharp and defined. The right knee was considerably swollen from fluid in the synovial membrane; it fluctuated; the shape was roundish, and the patella lifted from the bone. The measurements were—Left knee (normal): above patella, 11¼ inch.; round patella, 11¼ inch.; below patella, 10¼ inch. Right knee (diseased): above, 11¾ inch.; middle, 11¾ inch.; below, 10¼ inch. There was no pain whatever in the joint at the time of my seeing her. She was running about and playing with her younger sisters; she confessed that at night her knee ached. The swelling had been observed a fortnight before I was sent for. I applied a light pasteboard splint, the limb being semi-flexed; ordered four leeches, two to be applied to each side of the ligamentum patellæ; cod-liver oil, with iodide of iron, to be taken thrice a day, with quinine and acid mixture.

Aug. 16th.—She remained in much the same condition up to the 13th, when the knee became painful; it is now even more swollen. A blister was ordered, and two grains of iodide of potassium in gentian.

24th.—The splint was removed, and the knee examined. It measured—above patella, 12½ inches; across patella, 13; below patella, 11½; therefore is still more swollen. Splint readjusted.

27th.—Another blister was applied.

Sept. 3rd.—Much the same.

8th.—The swelling is perhaps a little less; there is now no fluctuation in the joint, but it is soft and quaggy, as though filled with a semi-fluid material; this decrease in size is therefore no improvement.

13th.—The knee is more painful; she describes the pain as of something large in the joint, that is pressing the bones apart. Seeing that my treatment had been hitherto unavailing, I determined to try the effects of pressure. In order to begin by degrees, having removed the splint, I bound a bandage on the limb from the foot upward; arrived at the knee, I placed a little pad on either side of the ligamentum patellæ, and tightened this part of the bandage very considerably.

16th.—The patient found the pressure very comfortable. I therefore applied strapping-plaster very tightly over the joint, with pads in the same situation as before.

24th.—The strapping being loose, she of her own accord asked for its reapplication. This was done as tightly as I possibly could.

30th.—She does not complain of pain. She is to leave off the iodide of potassium, and to return to the cod-liver oil and quinine. Strapping reapplied.

Oct. 4th.—The knee looks now hardly swollen; it is a little stiff from constant maintenance in the same posture; it measured, however, only very little more than that on the sound side. I applied a bandage tightly as before, and took leave of my patient.

I saw the young lady (not professionally) in May, 1859, and she assured me she felt no inconvenience from the knee.

William M——, aged fourteen, came to me at the Charing-cross Hospital on the 3rd of January, 1859, on account of a swollen and painful elbow (right). He is a pale, thin, strumous boy. The elbow is a good deal swollen, and hot, but not red; he keeps it semi-flexed, and holds the wrist in his left hand. The swelling is well marked; the fossa on either side of the olecranon is lost, and the juncture between the head of the radius and outer condyle is not to be felt on account of the swelling at that spot. He says this disease has been coming on about a month. He is not aware of having strained or bruised the arm. It began with some swelling and very little pain at first. The arm was put on a splint, and cold water applied; he had a senna draught. Measurements were not taken.

Jan. 6th.—Easier, but still as much swollen. Blister; cod-liver oil and quinine.

This treatment was continued for five weeks. A blister was always kept open; sometimes the splint was put on the inside, sometimes on the outside, so as to allow of blistering at different spots. At the end of five weeks, the skin was permitted to heal, and then the part was examined. It is still swollen, but not so much as at first, and the swelling is less fluid and more gelatinous in feeling; movement of the limb is painful. He says that, since the blisters have been discontinued, the joint is "more painful and bursting-like" than during their use. His general aspect and health have improved. A little sulphate of iron was added to his quinine mixture. The elbow was firmly strapped.

Feb. 26th.—The strapping gives relief; he has less pain and no feeling of distension in the joint. To be repeated.

March 3rd.—Pressure has been continued by means of strapping up to the present time. There is still a little swelling, but he wants to go to work again; he is permitted to do so, but is to come twice a week that the arm may be tightly bandaged.

May 13th.—The boy's arm seems now perfectly well.

Jane E——, aged twenty-seven, married, has two children, came to me, at Charing-cross Hospital, February 10th last, with a swollen and painful knee. She is a tall, robust woman, whose father had died of phthisis, and who has herself a somewhat strumous appearance. Ten days ago she knelt

* For some additional particulars of this very interesting outbreak, see the Report to the General Board of Health on the Sanitary State of Bristol, by S. T. Clark. 1850.

down on a thimble; the part where it struck the left knee was just inside the ligament of the patella. From that day the knee has been painful and swollen. She says that it is not so large now as it was three days after the accident, but is more painful. Right knee (normal): above patella, 12 inches; across patella, 12¼ inches; below patella, 11¼ inches. Left knee (diseased): above patella, 12⅞ inches; across patella, 12¾ inches; below patella, 11¾ inches. The swelling was not fluctuating, but soft and quaggy. The pain was not great; was most at night, as though "the joint would burst." I intended from the first to try the effect of pressure in this case; but as the knee was hot I believed that the inflammation was still too active. I, therefore, had a pasteboard splint applied, and ordered six leeches, to be followed by a blister. An aperient of tartrate of potash and senna. As she lived near, I promised to see her in a day or two.

Feb. 16th.—The pain in the knee was less; the blister still open; the draught had acted sufficiently. To have three grains of iodide of potassium and infusion of gentian three times a day. To dress the blister with lint and cold water.

19th.—Blister healed, and the pain returned; but the joint is not hot, or at least hardly perceptibly more so than the other. A bandage very tight at the knee, with a pad on each side of the ligamentum patellæ, was applied.

21st.—The pressure gives ease, and, therefore, tight strapping with pad in the same places was employed with benefit.

March 4th.—The patient is very much better, but on account of family duties must move about, more than is desirable, and is impatient of the restraint caused by the strapping. The left knee measures above the patella, 12¼ in.; across the patella, 12⅞ in.; below the patella, 11¼ in. This is very little more than the right; but as she is not likely to use the bandage as well or as much as she should, the improvement will hardly be permanent.

Other cases might be given, but these suffice. I have wrapped the joint, before applying the plaster, in lint spread with blue ointment, as recommended by Dr. Scott. This plan is not advisable in strumous cases. I have once used iodide of lead ointment in the same way. It may have been advantageous, at all events was not injurious; but the mere mechanical pressure appears to me to be the beneficial agent. In strumous inflammation of the synovial membrane, that sac is, as we know, filled with a soft, more or less translucent, and but slightly vascular jelly, which tends to spread and to permeate all the surrounding structures, and it seems that pressure prevents such luxurious growth, causes a greater concentration of this material, and subsequently its absorption. The cases, however, for this application must be properly chosen, or it will give not merely no relief to the patient, but absolute torture. There must be no active inflammation—a point which can be best ascertained by the absence of heat in the part, and of acute pain on pressing with the finger. Furthermore, those cases are most benefited where the patient complains of a pain as though the bones of the joint were being forced asunder, or of a sense of distension and bursting—a pain which results, I believe, from the interstitial fungus like growth, which the gelatinous infiltration is constantly undergoing.

Old Burlington-street, October, 1859.

ON

A CASE OF POISONING BY STRYCHNINE, AND RECOVERY.

BY GEORGE BENNETT, M.D., F.R.C.S.

ABOUT a quarter to seven A.M. of the 13th of October, 1856, I was requested to attend a lady, aged forty-two, who had, in a fit of despondency, taken the entire contents of a packet of "Battle's rat poison." On my arrival, I found that about half-past six A.M. she had mixed the powder in a tumbler of water, drank it, and by adding water again, had taken every particle of the powder. The bitter taste, she afterwards remarked to me, was not perceived until some little time after the powder had been swallowed, which I have observed is peculiar to strychnine. After taking the poison, she went and dressed the children; but, suddenly repenting of the crime she had committed, she informed her husband, who, after giving a dose of antimonial wine, which produced no emetic effect, came for me. She told me what she had taken, and appeared agitated, but having no symptoms to guide me as to the nature of the poison, and as vomiting had not occurred, I administered scruple doses of sulphate of zinc, and sent for the stomach-pump after a short space of time. On giving her some water, I perceived some slight spasmodic twitchings, which gradually increased in violence. I then suspected that strychnine was the poison taken, and as no vomiting had been excited, and the spasms precluded the use of the stomach-pump, I sent for the compound tincture of iodine. Before it arrived, however, the spasms had increased so violently that life appeared extinct; the face and hands were livid, the eyeballs protruded, and there was violent opisthotonos; pulse not perceptible. The most severe spasmodic action came on about a quarter to eight A.M., and about two minutes after the subsidence of a severe fit, the medicine having arrived, I gave her twenty drops in a wineglass of water. Soon after a very violent fit came on, and in this the respiration was so feeble that we all considered she was dead. However, she again rallied; and as soon as she was capable of swallowing, being about ten to fifteen minutes after the administration of the first dose, I gave her thirty drops of the tincture of iodine. She soon had another fit; but it was evident to all about her that it was less severe, and lasted but for a very short period of time. On the fit subsiding, in about ten minutes I gave another dose of thirty drops of the tincture. The convulsive fits had now ceased, and in about twenty minutes from the cessation of the last fit, violent vomiting came on; and this being assisted by diluents, the stomach appeared clear of the poison. Now, a question may arise how the iodine acted in this case. Probably by forming an insoluble compound of hydriodate of strychnine, and by relieving the system from the spasmodic action of the poison upon the spinal nerves, the emetics which had been administered were enabled to take effect. She continued free from any further spasm; and, after an hour, I left her. On returning in about an hour, I found she still continued better, with the exception of a few very slight twitchings. She complained of great debility; and the pulse being very feeble, I ordered her nourishing diet of milk and arrowroot, and gave an ammonia mixture, with compound sulphuric ether; and, under their influence, she rallied very rapidly. I remarked that during the convulsive paroxysms no screams were uttered; and on making inquiry after her recovery, she informed me that no pain was felt during the fits, only an inconvenience from the spasms drawing the legs so rigidly down. She also stated she was sensible during the fits to everything around her, retaining the most perfect consciousness of all that was said or done—was unable to speak, but never felt any inclination to scream or cry out. In the evening she complained of a little soreness of the throat, and a slight feeling of cramps over the lower extremities.

On the following morning (Oct. 14th), I found her much better; pulse regular; had passed rather a restless night; soreness of the throat had subsided; and she enjoyed some tea for breakfast. She had no pain, and complained only of a feeling of lassitude. The next day I found she had slept well; but the bowels not having been relieved, an aperient mixture was ordered, which, however, did not operate until the evening. The stimulating mixture was continued occasionally, and afforded great relief from the feelings of nervous debility which came over her. From the 16th to the 18th she improved daily; and on the latter day she was able to leave her room.

The next question that arises is as to the quantity of strychnine taken. I first tested one of the powders by the colour test, and by using sulphuric acid and the bichromate of potass an intense maroon or deep violet colour was produced, diffusing itself over the whole of the liquid and remaining for a few minutes. On one of the powders being analyzed by Professor Smith, of the Sydney University, it was found that a paper containing ten grains of a bluish powder (probably smalt) with which the strychnine had been mixed, gave a grain of very pure strychnine. On administering one of the powders to a young dog, it remained for fully an hour without manifesting any effect or inconvenience from the poison, when suddenly the convulsive spasms came on, and, increasing in severity, the animal died in three minutes. An older and larger dog had one of the powders given to it, and about an hour after the dose had been administered a severe fit occurred, but it rallied in ten minutes, and moved about, with slight paralysis of the hinder extremities; it appeared quite free from any suffering, and was even wagging its tail and seemed to be recovering for nearly half an hour, when the spasmodic twitchings again commenced and gradually increased in severity, until one strong convulsive fit terminated its existence. The bodies of both the animals—as I have observed in the human subject—re-

mained flaccid for a long time after death. A very curious galvanic action was produced on the last dog on its recovering from the first fit: by tapping or rubbing the hair over the back an immediate twitching came on over the body, but did not appear to impart the slightest sensation of pain to the animal. During the action of the poison the animals did not appear to suffer any pain, and no sound of any kind was uttered by them.

Sydney, New South Wales, 1859.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

LONDON HOSPITAL.

NECROSIS OF THE END OF THE STUMP, IN AN AMPUTATION OF THE LEG PERFORMED IN INDIA; RE-AMPUTATION HIGHER UP.

(Under the care of Mr. ADAMS.)

DURING the past two years we have noticed a few cases wherein amputations in one of the limbs having been performed primarily in India, the patients have appeared in our London hospitals on account of ulceration and necrosis at the end of the stump. The number has, however, been too few to permit of any practical deductions being drawn as to whether the great heat of the country had anything to do with the healing process in the stump; in two instances the form assumed by the latter was conical, with the end of the bone actually projecting, as if the muscles in the first instance had become retracted. In all of the cases the primary operations were for gun-shot wounds, attended by their accompanying phenomena —namely, shock to the system, collapse, &c.

The last case of the kind which came under our observation was at the London Hospital, the patient being a healthy-looking young sailor, who had been wounded in the foot at the siege of Cawnpore, as stated by Mr. Adams, and whose foot and ankle had been removed just above the latter joint. The stump healed, but afterwards its edges became ulcerated, the end of the tibia took on a diseased action, and the leg became unfit for use in any artificial appliance that was proposed for progression. The patient was most anxious to have another operation performed; accordingly, it was deemed expedient to re-amputate the leg higher up, and this, under the influence of chloroform, was effected on the 20th inst. by Mr. Adams, at its upper third. He made short rectangular flaps of equal length, which, when brought together by sutures, appeared to answer well. Little or no blood was lost. The healing process has been going on satisfactorily since the operation, and as the patient's general health seems good, there are grounds for anticipating an excellent recovery.

PROJECTING ANEURISM OF THE ARCH OF THE AORTA BETWEEN THE SECOND RIB AND THE STERNUM; THE VALUE OF ICE APPLIED LOCALLY.

(Under the care of Mr. ADAMS.)

To the report of a case of aneurism of the arch of the aorta, with a visible swelling situated between the second rib and sternum, which appeared in a previous "Mirror," (THE LANCET, vol. i., 1859, p. 629), the following particulars can now be added. The patient is still in the hospital; he is composed and tranquil, and looks like a person in very good health. Under the persevering use of ice constantly to the surface of the tumour for about twenty weeks, it has entirely subsided, and no pulsation can now be seen by the naked eye. He has no palpitation, nor forcible action of the heart; both radial pulses are equal in beat, volume, and general softness. He sleeps tranquilly and eats well, and so far as can be judged by the physical signs, although an aneurismal tumour is still present, with a distinct *bruit de soufflet*, it is quite possible that the greater part of the circumference of the sac is filled with fibrinous coagula. The dullness remains about the same, and the patient feels a slight inward beating at the spot corresponding to the situation of the tumour, and occasionally a little pain behind the sternum. He now has a belladonna plaster over the site of the aneurism, ordered to be continued for a month.

If this patient can change his occupation from that of a London dock tea-warehouse porter to some other that shall not necessitate the carrying of heavy weights on his shoulder as hitherto, he may enjoy comparative health for a considerable time. His age is fifty-eight years; the aneurism has been noticed nearly ten months, and the result of the steady and unceasing application of ice to the external tumour has been most gratifying. It is a mode of treatment worthy of adoption in aneurisms situated in other parts of the body, externally. The patient will shortly leave the hospital.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

NEW OPERATION FOR THE RELIEF OF THE PAIN IN ACUTE GLAUCOMA.

(Under the care of Mr. HANCOCK.)

THE operation which has been suggested by Von Grüfe for the *cure* (?) of glaucoma, is described as follows in the eighth edition of Druitt's "Surgeons' Vade Mecum," just issued from the press:—"He makes a small linear incision in the sclerotica one millimetre behind the cornea, and removes a sixth of the iris. Von Grüfe gives no theory whatever, and candidly says that his practice is wholly empirical." We have seen this method put into practice several times, and we must acknowledge with relief to the pain; but the plan resorted to by Mr. Hancock is infinitely preferable, on account of the reasons mentioned in the details of the subjoined case, for which we are indebted to Mr. A. E. Sansom, house-surgeon to the hospital:—

Arthur H——, aged fifteen, a tall, tolerably healthy-looking youth, was admitted on the 8th ultimo. When he was five years old, he was hacking a mutton bone with a knife, when the latter slipped and wounded his left eye. From the effects of this accident he was confined to the house for some time. The pain soon subsided; but the sight of the eye was destroyed. There was no apparent breach of continuity. No pain recurred until May last; and then he noticed that the eyeball began to enlarge. He applied as an out-patient on the 7th of July. At first, by the treatment adopted, the pain was relieved; subsequently it remained stationary at one point of intensity. It has become worse since; swelling of the eyeball has been increasing. The pain is slight if the globe be still; but by the slightest movement or pressure, violent aching is occasioned. It was feared that the other eye was becoming sympathetically affected; and he has been overtaxing it lately by writing.

Condition of the eyes.—The right healthy; sight good. The left swollen to about twice the size of the normal eye; sclerotic vessels dilated; choroid not showing through the sclerotic; pupil dilated extremely, slightly irregular. Masses of the capsule of a disorganized lens are visible. The enlargement of the whole globe is uniform. He complains of great pain when the eyeball is touched, which feels very tense and hard to the finger.

Operation.—On the 9th of September, Mr. Hancock introduced a Beer's cataract knife at the junction between the cornea and the sclerotic, the blade being inclined downwards, the point proceeding inwards and backwards. The place of puncture was the commencement, on the outer side, of the lower semi-circumference of the cornea. The point of the knife, now having traversed obliquely the layers of the cornea, was pushed backwards towards the interior of the globe, thus dividing the ciliary ligament in a portion of its extent. On the removal of the knife, a quantity of discoloured fluid escaped.

Mr. Hancock, considering that the great pain was due to tension of the iris and ciliary ligament by accumulated fluid, the product of the disorganized parts behind, believes that all the indications for the relief of the suffering will be fulfilled by this operation. And its advantages are:—

1. By the situation and oblique direction of the incision, a free drainage of the fluid is provided for.
2. The iris is very slightly wounded.
3. The pupil is preserved, of its original size, and in its normal situation.
4. The operation is very simple, and is performed remarkably quickly.

Sept. 10th.—Except for an hour or so after the operation, the patient has suffered no pain. The operation gave relief. He has slept perfectly well; before this, he has been frequently awakened by the pain induced by pressure on the eyeball from turning in bed.

11th.—Eye perfectly easy during the whole day.

12th.—Not the slightest pain, even on considerable pressure; the eyeball feels much less tense; the pupil is less dilated; no prolapse of iris through the wound.

21st.—Has gone on uninterruptedly well since last report; there has not been the slightest pain; the size of the globe has sensibly diminished; the pupil is far less dilated than it was before the operation; and the globe, instead of being hard and resisting, now easily yields to the touch; pressure upon it occasions no pain.

CLINICAL RECORDS.

UNREDUCED DISLOCATIONS OF THE ELBOW.

FROM the peculiar complex nature of the elbow-joint, the various injuries to which it is subject necessarily offer a wide field for study. To comprehend thoroughly the mechanism of the various dislocations of this joint, special and intimate acquaintance with this branch of surgery is required. It is the absence of this which explains the appearance of cases at our hospitals of imperfect reduction of dislocated elbows. Two cases of the kind came under our observation at King's College Hospital on October 22nd—one in a boy, aged about twelve, and the other in a lad, eighteen years of age.

The boy's case was one of some years' standing, and presented the somewhat rare form of the dislocation of both bones of the arm directly inwards. The external condyle of the humerus formed a considerable projection, whilst the olecranon process of the ulna could be felt lying upon the internal condyle; this gave a broad and wide shape to the joint, with much flattening of the arm, from the displacement of the muscular attachments. All the motions of the joint—flexion, extension, pronation, and supination—were perfect. Attempts had been made by surgeons to reduce the dislocation; amongst others, by Mr. Fergusson (under chloroform), but without success, and the deformity is likely to remain permanent. This form of dislocation is so rare, that many authors do not even mention it; yet its characteristics were very distinct and clear in this boy. Mr. Fergusson had seen but one other instance of the accident.

The lad, aged eighteen, had a dislocation of both bones directly backwards, of some six months' duration. It presented the usual symptoms, with a projection behind of the ulna; a hollow was felt on either side of it, and the arm was almost immovably bent at a right angle. Under chloroform some improvement was made in flexion, but to a slight extent only, and the tendon of the triceps was therefore divided—an operation which Mr. Fergusson was the first to attempt in this and similar cases. The proceeding permitted of a little more motion; but it is extremely doubtful, as the operator remarked, whether any satisfactory motion can be gained in the present instance. His experience has now led him to the conclusion that not much benefit can be obtained by attempts at reduction when the dislocation has been of long standing.

DIAGNOSIS OF CANCER OF THE BREAST.

ON the 15th instant, at St. Bartholomew's Hospital, the left breast of a woman, aged about forty-five years, was amputated for the scirrhous form of cancer by Mr. Paget. The organ was not wholly involved in the disease, this being confined to a mass as large as a pigeon's egg at the inferior margin of the gland. Before the operation, Mr. Lawrence and Mr. Stanley had agreed with Mr. Paget in the propriety of the proceeding. After its performance Mr. Paget made some practical remarks in relation to the diagnosis of such tumours. When the mass is cancer, the skin has a tendency to retract inwards towards the disease, and that was the condition in the present instance; the nipple and its areola were natural, but the retraction in other parts of the breast was similar in character to what occurs at or around the nipple. The growth had been noticed six weeks only, but was probably of anterior date, and was an instance of moderately acute scirrhous cancer. Before removing the breast, Mr. Paget took the precaution of cutting into the tumour—a practice which he recommended should be adopted in all doubtful cases,—and finding the disease to be cancerous, as was suspected, the whole of the gland (which was not very large) was taken away. On section, a rather uniform mass of a yellowish colour was exposed to view; there was an absence of the white lines characteristic of the malady; its intense hardness and unyielding nature, however, readily pointed out its true character, even without the aid of the microscope. Whilst showing it, its surface became slightly concave—another peculiarity of the same disease. This patient is going on well.

MYELOID GROWTH ON THE FRONTAL BONE OF A CHILD ELEVEN MONTHS OLD.

A SHORT report of this case appeared in our "Clinical Records" of August 13th, 1859. At Guy's Hospital, on the 5th of July, Mr. Birkett made an incision of the integuments, to ascertain the nature of the growth. It appeared at first to be medullary cancer, but was afterwards found to be myeloid disease, and was so closely attached to the frontal bone that removal was found impracticable. The incision never entirely healed, and the tumour continued to grow until about the 20th, when inflammation attacked it and the surrounding parts. The tumour then sloughed, and the infant sank from exhaustion on July 26th.

Necropsy.—The entire growth was gangrenous, forming a soft, semi-fluid mass, easily washed away with water. After the scalp was removed, there appeared a bony ring, firmly attached to the frontal bone, about three inches in diameter. The surface within this ring was bone, and corresponded with the inner table of the adult cranial bones. From this surface delicate, acicular, bony spiculæ shot into the new growth. The centre of the disease seemed to correspond with the right frontal tuberosity, extending above this point and downwards into and on the roof of the orbit. The frontal bone was perforated at a point corresponding with the centre of the disease, and there was pus between the bones and dura mater. The state of the new growth precluded any minute examination of its elements. To have extirpated the disease during life, nearly the right half of the frontal bone and a portion of the roof of the orbit must have been removed.

ACUTE RHEUMATISM SUPERVENING UPON NECROSIS OF THE FEMUR.

IT is by no means infrequent for patients to be attacked, during their stay in hospitals, by diseases other than the special one for which they were admitted. Eruptive and other fevers, erysipelas, &c., often supervene. At the present moment, there is a healthy-looking woman, twenty-five years of age, who was admitted some weeks back into the Charing-cross Hospital, under the care of Mr. Hancock, with symptoms of necrosis of the upper part of the shaft of the left thigh-bone, for which a seton was put in, with much benefit. On the 11th of October, she was seized with an attack of acute muscular rheumatism, and then came under the care of Dr. Willshire. She was treated for this with bicarbonate of potass and iodide of potassium, but the most decided relief to the pain was afforded by a grain of opium given every three hours; and at the present time convalescence is all but established. A case somewhat analogous to this came under the care of Dr. Gibb a few weeks ago, at the St. Pancras Dispensary, of a woman, the mother of several children, who aborted for the first time with a three months' fœtus. She was making a good recovery, and all hæmorrhage had entirely ceased for some days, when she was seized with symptoms of acute rheumatism of the right arm and leg and back of the neck, followed, on the third day, by severe pain over the heart. All this was successfully combated by treatment, and she was on the point of sitting up, when erysipelas attacked the face and scalp, from which she is now suffering, but with a prospect of recovery.

THE REPORTED PLAGUE AT BEYROUT.—From Malta we learn that the Board of Health, having received official intelligence that the suspicion of cases of plague at Beyrout has proved unfounded, have discontinued the sanitary restrictions against arrivals from Syria.

Reviews and Notices of Books.

On the Diseases and Injuries of the Joints. Clinical and Pathological Observations. By THOS. BRYANT, F.R.C.S., Assist.-Surgeon, Surgical Registrar, and Lecturer upon Operative Surgery, at Guy's Hospital. pp. 273. London: Churchill.

As this volume treats of a subject particularly interesting to surgeons at the present time, and as it may moreover be considered to embody the doctrines and opinions held in one of our largest metropolitan hospitals, we propose to notice its contents somewhat *in extenso*.

Taking the Diseases of the Joints first, the author commences with those of the synovial membrane, and divides synovitis into acute, subacute, chronic, and rheumatic. After a short sketch of Acute Synovitis, follow two illustrative cases, one the result of injury, and the other from an abscess bursting into the joint, the first of which (a boy who received a kick on the hip) can hardly be considered a fair example of the disease; for, "upon examining the joint, the head of the femur, the acetabulum, and nearly the whole of the right os innominatum, were stripped of their periosteum and cartilage; the pubic bones were separated at their lines of junction, were black, and bathed with pus." Are not these rather the results of acute necrosis? Passing over the other varieties, we come to the Diagnosis of the disease, which only occupies a couple of pages, and presents no novelty; this is followed by a short section on Prognosis, in which the author shows that acute synovitis is a very fatal disease (for out of twenty-five cases eleven died), while in the subacute, chronic, and rheumatic forms of inflammation there is little danger to life. In considering the Pathology of synovitis, Mr. Bryant ventures to suggest that the earliest effect of inflammation in a joint is the arrest of its natural secretion. If this is so, it must be a *very* early stage, for, as the author himself says, "the first positive result which presents itself is an excess of secretion." A case is quoted in this section in which fine radiating capillary vessels were found on the articular cartilages of the ankle-joint beneath a deposit of lymph, and which is laid great stress upon, as proving that a synovial membrane passes over the cartilage—a fact which we believe has never been seriously doubted, although in a *healthy* adult joint it cannot be demonstrated. The case is interesting, however, as showing that in states of disease vessels are developed beyond the capillary loops which are always to be seen at the margin of a healthy articular surface. No pathological explanation of the formation of matter in a joint is attempted, but we are told that, when formed, "pus apparently acts as a caustic, destroying everything by mere contact." As respects the Treatment of synovitis, the author adheres to the long-established rules—leeches, fomentations, rest, combined with salines, mercury and Dover's powder, &c. We would venture, however, to ask whether as good, if not better, results would not be obtained were the mercury diminished, or left out, and the opium considerably increased? Judging from the good effects produced by the drug in affections of other serous membranes, we may not unreasonably expect the same in cases of joint disease. In the treatment of the subacute and chronic varieties of synovitis, we were surprised to find no allusion to the use of the actual cautery, nor is it mentioned throughout the work; it has been, however, abundantly used by other hospital surgeons in diseases of joints, and, we believe, with the best results. Mr. Bryant makes a passing allusion to the practice of tapping a joint when much enlarged from chronic effusion, and remarks that "in this country such a practice is rarely adopted." We believe this form of treatment to be not so uncommon as imagined, and would notice that some surgeons (Mr. Erichsen and others) have followed the continental practice of injecting iodine in these cases with the greatest success.

The author follows Sir B. Brodie in considering the gelatiniform disease of the synovial membrane to be the result of an inflammatory process; while he regards the pulpy, brown, and softened condition, described by Brodie under the name of "pulpy degeneration," as "rather the result of the same inflammatory action, modified by some peculiar constitutional tendency, than that it is essentially a new product of a specific disease." The diagnosis between the two diseases appears to be by no means easy; and, after all, is it a matter of great importance? for the same treatment is recommended for both—namely, rest, air, tonics, and Scott's dressing; and, as we are rightly warned, "this treatment should be continued for many months; and if it does not cure the disease, it retards its progress and preserves the limb." This is just one of the *questiones vexatæ* of surgery. Will the joint eventually get well? It *may*, certainly; but it will, we believe, be only at an immense expenditure of time and suffering on the part of the patient; and it is one of the most trying positions of the surgeon to determine whether to advise some operation at an early date, or to go on hoping for the best, with the chance of a worse disease supervening; for then,

"When, from either of the two forms of diseased synovial membrane, the joint suppurates and disorganizes, other considerations come into play; if the discharge, and the irritation produced by the diseased articulation, should tell injuriously upon the health of the patient, and the hope of restoring the joint to a useful condition be slight, if it exist at all, some operative interference may be called for."

In considering the diseases of articular cartilage, and especially the "granular degeneration," Mr. Bryant starts with the proposition that, though the cartilages derive their chief nourishment through their bony attachment, they are, in addition, supplied from the synovial membrane, which he believes, from pathological observation, (*vide* case *supra*,) to be continued over them; thus,

"In some cases the synovial aspect is the primary seat of the disease, but then the synovial membrane will be found implicated, the changes in the articular cartilage being only secondary. For, remembering that it is from this membrane that the synovial surface of the articular cartilage derives its nourishment, it is fair to conclude that this surface would first show any changes that must ensue from an arrest or deficit in its nutritive supply."

In support of this view, a case is quoted of a boy who died on the twenty-eighth day after the first appearance of disease in the hip-joint, in whom, besides the evidences of synovitis, "a patch of so-called ulceration, about the size of a sixpence," was found in the acetabulum; while on the head of the femur was a well-defined portion of injected synovial membrane, beneath which "the cartilage had become perfectly degenerated into granules."

While on this subject, we would allude to an able paper by Mr. Barwell "On Articular Cartilage," which appeared in the October number of the *British and Foreign Medico-Chirurgical Review*, and in which the author, after demonstrating the true tubular nature of the "articular lamella," which thus affords an abundant supply of nutriment to the articular cartilage, denies the existence of any membrane over that cartilage, or the possibility of nutriment being derived in that manner, on the following grounds:—

"The presence of such vessels would show that a structure, having one free, one attached surface, might be nourished by both. Moreover, it would prove that a cellular structure might be nourished from the surface towards which the cells grow. But the first fact would be isolated, and the latter is hardly conceivable."

In support of *his* view, Mr. Barwell quotes four cases, almost precisely similar to that of Mr. Bryant, which he explains by changes having taken place either in the contents or the activity of the cartilage cells. It is, however, allowed by Mr. Bryant, that "in many instances the changes in the cartilage commence upon their bony attachment."

Fatty and fibrous degenerations of the articular cartilage are

next considered, both of which Mr. Bryant holds to be special and distinct forms of disease, the fibres being the result of a splitting of the hyaline substance by the disintegration and disappearance of the cartilage cells. Mr. Barwell, on the other hand, maintains that fibrous degeneration is not itself a disease, but an accompaniment of almost every morbid process which takes place in articular cartilage. Speaking of rheumatic changes in the articular cartilages, Mr. Bryant quotes a case of diseased knee, which rather militates against his own views in the former pages. Thus: "The cartilages covering the ends of the bones were entirely destroyed, and the surfaces of the bones were irregular. The synovial membrane of the patella was *inflamed* and *swollen*, but the *cartilage* of this bone was *quite healthy*."

Strumous deposit in the articular extremities of bone Mr. Bryant believes to be very rare; in fact, he "regards such a specimen as a pathological curiosity," and considers that what is commonly termed strumous disease is simply chronic inflammation, giving under that name a very good sketch of what is described by some authors as "diffuse strumous infiltration." That another form (the circumscribed) exists, the chief characteristic of which is a deposit in the articular extremities, no one who has seen many resections of joints can doubt. Whether the deposit be called "tubercle" or "inflammatory product of a low order" is a matter of no practical importance; its presence is hurtful and dangerous, and no operation will be successful which does not remove the whole of it. A number of interesting cases are here detailed, showing the different courses which the several diseases of articular extremities, caries, necrosis, and abscess, may take; and after considering anchylosis of joints, we come to one of the most important chapters in the book, and to which constant reference is made in speaking of the treatment of the several diseases—viz., that headed Amputation or Excision. We fully coincide with the author's regret that "there has been so much party feeling in the consideration of both operations," and congratulate him upon the fair spirit he evinces in the discussion of the question, though we are obliged to differ from him in some of his conclusions. As regards the elbow, we need only quote the following (and the same practice holds good for the shoulder also):—"At Guy's Hospital, amputation for diseased elbow-joint is so rare, that in five years but one case has taken place, and, in the same period, eight excisions of the elbow have been performed." As respects the knee, however, we read: "If, then, by the operation of excision of the knee-joint the dangers to life are greater than in amputation, and as the advantages gained by preserving the limb are not so great as to cover the extra risk, the propriety of selecting amputation cannot be questioned." This per-centage of mortality is at present the bone of contention between the two sets of advocates, and will take, we believe, many more operations to settle. In the meantime, we rejoice to find Mr. Bryant admitting that "in select cases there is no doubt that excision should be performed."

In speaking of excision of the hip, Mr. Bryant evinces a want of acquaintance with the practice of other hospitals, at which we are surprised. After mentioning the frequent occurrence of disease on both surfaces of the joint, he says, "the pelvic portion of the joint can be but little interfered with, and can certainly not be removed; and one portion, therefore, only of the joint—viz., the head of the femur—can be excised. Under these circumstances, there are not many instances where much benefit can be expected, and as a consequence *the operation of excision should not be performed.*" As we believe the operation has never been performed in Guy's Hospital, this prohibition may be taken for what it is worth, and as Mr. Hancock and others have removed the whole or part of the acetabulum, that part of the proposition must be held to be false. We would merely make the additional remark, that it is by no means uncommon to find, on removing the head of the femur, the greater part of the acetabulum necrosed and detached, and only requiring to be lifted away. If any proof were wanted of the advisability of this operation, we have a most convincing one in Mr. Bryant's own report of a case, (p. 90,) where disease of the hip had existed two years, and after death there was found "in the head of the bone a loosened sequestrum, extending backwards towards the neck," and concerning which there occur the following trite observations:—"If the sequestrum had been removed, a recovery might have taken place; as long as the source of irritation remained, such a result could not be expected." It is perfectly obvious that the only mode of accomplishing this would have been to excise the head of the femur!

We have already far exceeded our usual limits, and must merely allude to the latter part of the work as containing an account of the Injuries of Joints, under the heads of Wounds, Dislocations, and Compound Fractures into joints.

The first portion of the book is that by which it will be chiefly judged, because the subjects of which it treats are those most commonly seen in practice, and on the diagnosis and treatment of which information is most required. And here we fear the practitioner will be disappointed: the chapters on Diagnosis and Treatment (particularly the latter) are short and not of the most satisfactory kind. The impression left on the mind after their perusal is, that if the disease is slight or chronic, we can alleviate or perhaps cure it; if severe and acute, it will destroy the patient, unless amputation be performed, and then the mortality is twenty-five per cent. That the author has shown great industry in the study of the pathology of joint diseases cannot be doubted, though his opinions clash in many instances with those commonly held; and it only remains for us to hope that time will lead to a more satisfactory and successful plan of treatment.

THE JOURNALS FOR THE QUARTER, &c.

The British and Foreign Medico-Chirurgical Review (No. XLVIII.) opens with a short but clear exposition of some of the more important doctrines enunciated by Virchow in his recent work upon "Cellular Pathology." We see no reason to differ from the writer of the article in his opinion, viz.—

"If it shall turn out that these views are supported, there is no doubt that Virchow has made a vast step forward, and that a very simple and grand expression of morbid phenomena has been given. But many of the statements are not only novel, but are based on propositions still greatly controverted. ..... Certainly, not without grave consideration ought we to abandon views formed after full inquiry and no little careful experience. In medicine, as in all other things, we must give way to facts, but we are not called on at once to admit the truth of opinions which go against our accepted doctrines."

In a review of "The Modern Doctrines of Syphilogeny," judgment is given, that the teaching "of the School of the Midi" is too precise; that by it the venereal disease is divided into stages which do not exist in nature, or that the symptoms and history of the disease are very different on the two sides of the channel. The etiology of epidemic and other diseases is next discussed, and then follows an interesting disquisition upon the relations between Medicine, Religion, and Philosophy. After a tilt with the Physiology of Dr. John Hughes Bennett, we arrive at the most practical article of the number—"The Treatment of Delirium Tremens." The *résumé* of it is, that,

"With all the difficulties and discrepancies surrounding the matter, we believe that unprejudiced inquiry will lead to the conclusion, that the treatment of delirium tremens by large or frequently-repeated doses of opium, and by the continuous administration of spirits, is not warranted by experience, nor in conformity with theory. We hold it to be equally a truth, that the withdrawal of the accustomed stimulants is never a cause of the paroxysmal outbreak, but frequently a preventive of its more perfect development when only threatening the drunkard."

We regard the writer of this article as having satisfactorily

worked out his problem, and as meriting notice also for his sensible opposition to the fashionable and far too easily appreciated system of treatment, now in vogue for all diseases, which looks for the τὸ καλὸν only in "brandy-and-water." The seventh review is a great, heavy, lumbering composition, putting us in mind of a "whale in a washing-tub." Beside the usual "Bibliographical Record" and the five "Chronicles of Medical Science," we have an original communication by Dr. Lawson "On Yellow Fever," one by Dr. Hayward upon "Anæsthesia," another by Mr. Barwell "On Articular Cartilage," and also one by Dr. Ogle "On the Nervous System."

Vol. V. of *Guy's Hospital Reports* is remarkable for its variety of matter, containing not less than twenty-two memoirs. Mr. Forster gives us another case of "Gastrotomy," undertaken in consequence of contraction of the œsophagus from the action of corrosive poison. The little patient went on favourably until the morning of the fourth day, when, after feeding by the nurse, peritonitis supervened, and terminated fatally. Notwithstanding both his cases have proved untoward in their results, the operator still believes gastrotomy "to be perfectly justifiable." The fourth essay, by Dr. Wilks, is an important one, and no doubt will be often referred to as having a sort of official character about it, from the fact of the chief disease of which he treats having been first investigated at Guy's Hospital. The essay in question deals with "Cases of Morbus Addisonii, Melanæmia, Anæmia idiopathica, Leucocythæmia splenica et lymphatica." Dr. Wilks, admitting it to be useless to pretend ignorance of the scepticism which prevails amongst some as to the conclusions arrived at by Dr. Addison concerning the fatal nature of disease of the supra-renal capsules, and its frequent association with discoloration of the skin, makes it his endeavour to show that, apart from the legitimate doubts which should attend new doctrines, several objections have been made which are founded simply upon erroneous views as to the original statement of Dr. Addison. The result of the author's knowledge and inquiry is sufficient to lead him to a confident belief "as to the undoubted existence of such a disease as morbus Addisonii." Two coloured plates illustrate the paper. Dr. Pavy continues his investigations into the glucogenic functions of the body. In the previous number of the "Reports" he published a memoir to the effect of negativing the views lately entertained by some physiologists regarding the production of sugar by the liver during life. In his later researches during the past year concerning the disturbances of the nervous system producing saccharine urine, the results he previously obtained have been in the highest degree corroborated. "Indeed," says Dr. Pavy, "I do not know of a single fact standing in opposition to the conclusions that were announced in the previous Reports."

"From this series of experiments, we have conclusive evidence before us that lesions of certain parts of the sympathetic system produce a most strongly-marked diabetes—a diabetes, however, as far as I have yet discovered, which is only of a temporary character. What the chain of phenomena is that determines such an effect, constitutes the important problem that yet presents itself for solution."—p. 246.

Dr. Gull contributes some interesting remarks relative to rather an obscure subject—namely, the destructive changes taking place in the lung from diseases in the mediastinum invading or compressing the pneumogastric nerves and pulmonary plexus. Whilst we think Dr. Barlow's observations "On some points in the Diagnosis and Treatment of Heart Disease" are just what his class wanted to hear in his lectures, we are utterly at a loss to conceive why they should have been published in the work before us. Surely the author does not seriously mean that the clinical truisms he has treated us to are not explicitly taught in the writings and lectures of others? Here, likewise, is Dr. Whitley, with "Cases illustrative of the Treatment of Rheumatic Fever," concocting a paper such as we might approve at a students' medical society! Really, the Guy's men must give us credit for knowing *something!* Dr. Odling concludes the volume with observations "On some Failures of Marsh's Process for the Detection of Arsenic."

The present number (XVI.) of the *Journal of Psychological Medicine* is about as sterling and solid a production as any the series hitherto contained. Suicide and homicidal mania in particular are viewed and considered under several aspects. Calmeil's new work upon "Inflammatory Affections of the Brain" is analyzed; whilst Professor Hoppus concludes his elaborate and interesting exposition of the "Psychology of Kant."

The *Journal of Mental Science* (No. XXXI.) gives an official report of the "Annual Meeting of the Association of Medical Officers of Asylums and Hospitals for the Insane," along with the address of the president, Sir Charles Hastings. Dr. Bushnan asks and answers the question, "What is Psychology?" whilst Dr. Maudsley discusses the "Correlation of Mental and Physical Force," and Dr. Tuke continues his essay upon "General Paralysis." A full report of the "Inquisition in Lunacy on Miss Ewings" is appended to the number.

We find in the fifteenth number of the *Australian Medical Journal*, which we have lately received, one of our "leaders" (upon "Science in Courts of Law") inserted, but credited to the account of a contemporary. This journal shows that medicine is moving at the antipodes.

We have received the fourth number of the *Englishwoman's Journal*, the contents of which are, as usual, a happy combination of the useful and sprightly.

AN OPIUM-EATER.

To the Editor of THE LANCET.

SIR,—As the publication of the following case may prove of some service in a practical point of view, I would beg to trespass upon a little of your valuable space.

I was hastily summoned very recently to the bed-side of an "opium-eater," or rather a laudânum-drinker,—he having gradually increased the dose till he could take, in the course of twenty-four hours, from three to four ounces of the tincture of opium. He has been subject every few months to attacks of bilious vomiting and purging, accompanied by painful cramps in the abdomen. It was on the occasion of one of these fits coming on, but in a more aggravated form than usual, that I was called in. I found him suffering the most intense agony, which threw him into a bath of cold, clammy perspiration, and depressed his mind so far as to create a strong and almost irresistible desire to commit suicide. As his cries for immediate relief were so urgent, and the suicidal tendency was so marked, I was puzzled to know what to give him. Opium and its preparations would be of no use, nor would any anodynes of that character be powerful enough to affect him. To add to the difficulty, the stomach was so irritable that everything was immediately vomited back again, even an effervescing saline. In order to suspend this, and remove any inflammatory mischief that might arise, I applied at once over *the whole* abdominal surface a muslin handkerchief dipped in strong hartshorn, and covered this over with a piece of oil-silk to prevent evaporation. In a very few minutes, the skin was raised into a number of small blisters and a painful rash. His agony and cramps gradually calmed down, and the vomiting ceasing, I gave him five drops of chloroform; this had a most soothing effect, and I then ventured upon fifteen drops mixed with two grains of camphor every hour. After he had swallowed nearly a drachm in divided doses, sleep ensued; and from this time he gradually recovered, after having passed about twenty-five purged motions, of the most acrid and offensive nature.

This case is interesting as showing how the system will tolerate large doses of chloroform, when it has been for a long time under the influence of other narcotics; for it must be remarked that this patient was a most inveterate smoker and snuff-taker. I may also observe that the *immense* and *instantaneous* counter-irritation produced by the strong liquor of ammonia, covered with the oil-silk, is of vast importance to us in all such trying cases as this. The large field for observation which I had in the Crimea during the late war has convinced me of the great value of this remedy in the first stage of all acute abdominal affections, on account of its rapid effect.—Yours, &c.,

J. VAUGHAN HUGHES, M.D.,
Brighton, Oct. 1859. Knt. of the Order of St. Maurice and St. Lazarus.

THE LANCET.

LONDON: SATURDAY, OCTOBER 29, 1859.

FROM a statement in another part of this week's LANCET, it appears that the Committee, which was appointed last year by the National Association for the Promotion of Social Science to inquire into the practice and results of Quarantine in different countries, has been actively pursuing their work of obtaining exact information on the subject which they have taken in hand, and we are glad to find that their labours on this head have not been in vain. The greatest impediment hitherto in the way of forming anything like sound conclusions, or such as were at all likely to command general acquiescence, as to the propriety, or otherwise, of existing quarantine regulations and practice, has been the utter want of reliable and sufficiently extensive data. There has, in truth, been no real foundation to build upon. It had, it is true, been long notorious that much of the system in vogue was most absurd, and ought long ago to have been expunged from the code of every civilized community. No sane man, in this country at least, would now dream of detaining a person who is in perfect health for a month or more in durance vile, merely because he had been looking at the pyramids, and chose to return home from Egypt on board ship rather than by land; or of prohibiting the landing at Southampton of the Indian mail-bags until each separate letter had been duly slashed and smoked to prevent the introduction of the plague! Yet such things were done here within the last thirty or forty years, and they are being done at this very time in more than one foreign port in the Mediterranean—nay, even in some of our own colonies, in spite, it must be admitted, of their repugnance to such absurdities, and only because the dread of retaliation is over their heads.

Is not it, then, high time that a system which keeps up such procedures should be fully and fairly inquired into—and by the medical profession, too, at whose door must unquestionably be laid all the responsibility of its institution? for it should ever be remembered that it is only with medical sanction that it is maintained, as it was on medical opinion that it was originally established.

The National Association has therefore, we think, done most wisely in instituting, through its department of Public Health, a full investigation of the subject; and the names of the gentlemen who have at their request undertaken to conduct it afford the best guarantee that the investigation will be a thorough and, at the same time, a strictly impartial one. The public, as well as the profession, will not fail to have confidence in an inquiry in which such men as Sir JAMES CLARK, Sir WILLIAM PYM, and the Directors-General of the Army and Navy Medical Departments, not to mention other eminent names, take part. Hitherto, the question has been examined far too much under the influence of pre-adopted opinions, and by personal or party bias; and the natural result has been, that exaggerated and often most unfair statements have been put forth, and most hasty and unwarranted conclusions hazarded one way or the other, either in disparagement or in vindication of the existing practice.

The very use of such terms applied to the contending partisans as "quarantinists" and "anti-quarantinists," and "contagionists" and "non-contagionists," is evidence in itself how little the subject has been rightly understood, and how much prejudice and prepossession have had to do in its examination. To imagine that if it can be merely shown that a disease exhibits occasionally, and under some circumstances, contagious properties, personal contact or communication must therefore be the chief or the only mode of its origin and dissemination, and that the prevention of such communication must therefore be the surest prophylactic, is about as rational as it would be to maintain that there is but one mode of the dispersion of plants, and that if they are not, for example, inserted directly into the ground by the hand of man, they will soon altogether cease to spring up. Diseases, like plants, have more ways than one of development and diffusion; their germs are often scattered we know not how. But the admission of this fact need not, surely, carry with it the consequential rejection of all and every means of guarding against the transmission of the reproductive atoms, either by human intercourse, or by other palpable and appreciable agencies. Only let the evidence *pro* and *con.* be always fairly and dispassionately examined, as it would be upon any other subject of scientific physical inquiry, and let not opinions be formed until such an examination has been conscientiously made.

It has been over and over again alleged that most of the existing regulations and practices of quarantine rest upon simply gratuitous, and some of them upon positively fallacious, hypotheses, to which ignorant fear had given currency in the first instance, and which long usage alone has served to perpetuate. There is truth in this. For upwards of a century, cotton bales were believed to be amongst the most likely media for transmitting the infection of the plague from one country to another. Now, this idea is all but exploded amongst, at least, unbiassed and disinterested persons, and for the very satisfactory reason that it is contradicted by the experience of every lazaret in the Mediterranean. And may not it be so with other alleged channels of importation of that and the other diseases against which quarantine is usually directed? Suppose, for example, that the medical profession were appealed to by the community on this point, what evidence can be adduced to show that either the plague, the cholera, or the yellow fever has ever been introduced into any place or country by a vessel whose occupants had remained free from all sickness during her voyage, and were quite healthy on reaching her port of arrival? What would be the reply? Are they prepared to say that such cases have occurred? and, if so, where are the records to be found? It is obviously to the solution of such practical questions as these that the inquiries of the Sub-committee should be especially directed, while they carefully eschew the barren field of controversial discussion as to the contagiousness or non-contagiousness of certain diseases, or commit the fatal blunder of resting the necessity, or otherwise, of quarantine measures on the decision of this cloudy and fugacious theme. The acrimonious and very illogical disputes which followed on the dogmatic denial of the contagiousness of the plague by Dr. MACLEAN, now nearly forty years ago, and more recently by some official writers in respect of malignant cholera and yellow fever, are warnings that should not be overlooked. Medical science does not admit of absolute unconditional assertions of doctrine, and peremptory language can seldom be used in its discussions with safety. The analysis and exposition of authentic and mul-

tiplied evidence are the best preservative against this too common error.

In connexion with an inquiry respecting the practice of quarantine conducted in this spirit, there are several questions of great moment that will naturally arise for consideration. The sanitary and hygienic condition of merchant vessels and their crews is one of the most important, and loudly calls for more attention than it has hitherto received. No one who has had opportunities of personal knowledge of merchant ships can be surprised at the large amount of sickness and disabling bad health which prevail in the mercantile marine of most countries, and probably of none more than of our own. To talk of a *clean* bill of health being given to a vessel, without the slightest regard to its sanitary condition or to the means of preserving the health of those on board, is manifestly nonsense.

Besides this practical question, there is another, of a more strictly scientific character, that might be most advantageously explored; we mean, the ascertaining and recording of the appearances of epidemic diseases in all places where quarantine exists. Such a registration, if faithfully carried out over a series of years, might lead to the discovery of some very curious and important results in medical, as it has done in meteorological science, and in other departments of physical research.

THE question of electing the new Fellows occupied the deliberations—not, we understand, very calm deliberations—of the College of Physicians on Saturday last. The first list of nominees was taken up; the candidates were balloted for, and three or four were blackballed, notwithstanding the recommendation of the Council. It was felt, no doubt, that the claims of the rejected candidates, howsoever intrinsically good, ought to be postponed until those of older Licentiates had been considered. The meeting was adjourned for the purpose of discussing the second or supplemental list of nominees. Whether this list will be treated with more tenderness than the first remains to be seen. The proceedings of the Council have given rise to much bitterness of feeling and dissatisfaction amongst the body of Fellows and Licentiates. We shall not fail to pass under closest scrutiny the recent acts of the College and its Council; and trust we shall have no occasion to censure individuals or cliques for having suffered motives of private malevolence or jealousy to influence them in the discharge of a most delicate but important public duty.

DEFINITIONS are the rocks a-head in all social questions. The great query, "What is a pound?" set economists in a ferment some years since, and still remains unanswered. It was a positive boon when somebody defined respectability to consist in keeping a "horse and shay;" and any equally comprehensive explanation of the word poverty, (particularly if it included a definition as to whom we might consider "objects of charity,") would be of eminent assistance to the medical profession. That the services of its members are often claimed gratuitously by persons well able to pay for attendance, is a lesson that a very brief professional life, whether public or private, will teach to the largest-hearted and most unsuspecting of practitioners. Setting aside all higher considerations, there must be something eminently attractive in the mere work of doing practical good, and feeling that it is being done, which chases away discouragement, and leads men of all ranks in the profession to labour without ceasing for the sole benefit of a duly ungrateful public. One "shuns inglorious ease, and lives laborious days," that he may investigate the nature of unhealthy miasmata, and has not even the reward which brought comfort to VESPASIAN: "Lucri bonus est odor ex re quâlibet." Another works his very life out amongst the reeking graveyards; and many such men untimely die that others may live, without receiving any earthly recompense or recognition of their labours; whilst wealthy citizens, whose charity never went beyond the beneficent bestowal of the crumbs from their tables, when, in the fulness of time, they are gathered to the ancestors of whom they were ashamed, have their memories embalmed in the newspapers for the admiration of posterity. Excellent ensamples for youthful imitators! Quondam shop-boys die millionaires. How often does the Book, "ubi et facta et dicta nostra examinanda sunt," show that this was all he was worth when he died, and so condemns him!

But if DIVES too often sins in selfishness, it must not be forgotten that the other extreme is not altogether free from evil—extremes seldom are. Though charity be the greatest of the triad—"the love of GOD which works by love of our neighbour, and is greater than faith or hope," as Bishop ATTERBURY tells—the "soul of all the rest," as MILTON writes,—it still is fitting that we remember this same charity begins at home, and that we have no right to take the bread out of the mouths of our brethren that we may be ostentatiously charitable to the stranger at the expense of their starvation.

Believing that the system of the so-called "provident" or self-supporting dispensaries would, in practice, have a tendency of this evil kind, we have always discouraged their establishment. That this judgment was correct, the utter failure of these institutions to fulfil the results anticipated from them bears abundant evidence. As another attempt is now being made to found one of these dispensaries in Soho, it is right, once for all, to point out how much wrong is done to the profession by them, and how unfair is their establishment towards those whom the "res angusta domi" forbid to drive in broughams and inhabit Savile-row. This proposed Dispensary is intended to benefit "small tradesmen, working persons, "their wives and children, individuals of small income, and "servants" residing in the parish. They are to pay a penny a week each person, and for this are ENTITLED to immediate medical attendance at their own homes, to all medicines, to have the choice of a medical attendant, and, if necessary, a consultation on the case. The result of such excessive liberality, such large privileges for so small a sum, is, that men suspect the motive, and inquire curiously into the result. To the latter we will first allude.

"An' two men ride of a horse," says DOGBERRY, "one must ride behind." And when twenty thousand are astride the professional Pegasus, the result is that some must be very near the tail; these are oftentimes well-informed gentlemen, equal to any emergency, but who, in worldly prosperity, are little better off than he of Mantua who awakened the commiseration of ROMEO. It is easy to pick a hole in a threadbare coat, and we believe that the knowledge acquired by the hard experience of those who are the poorer brethren of our order is too often underrated. They comprise a very large number; and it must be evident that one result of these self-supporting dispensaries is to inflict incalculable injury on them.

Their remuneration is in accordance with the means of that class which includes the majority of their patients—the class, in fact, who subscribe to these self-supporting dispensaries. Nor is this the only evil; for these institutions, like the savings-banks, are, for the most part, used by a higher class of persons than those for whose benefit they were established. The weekly penny of the prosperous tradesman cannot be refused; for who shall judge of his prosperity? And thus a double wrong is done. There are public hospitals and charitable institutions for the destitute sick, and if there be not sufficient, more may be established; but there is neither charity nor brotherly love in sacrificing the interests of struggling practitioners to a false philanthropy which sometimes, we fear, is not entirely free from suspicion of a more sordid motive. It is evident that the weekly sum paid can offer no adequate immediate remuneration for the work undertaken, even if each subscriber be ill for only one week in five years. On the other hand, the high satisfaction that men have a right to experience who do good for good's sake, is carefully disclaimed; as those who support these dispensaries are encouraged not to consider themselves objects of charity. Hence there may too often be traced motives for seeking these appointments which we can only allude to with regret. But we hope that many have lent their names to such schemes merely because they were misled by the specious arguments advanced on behalf of these institutions, and never thought of the evil that might be wrought for want of thought.

In the handbills distributed to assist the establishment of this new Dispensary in Soho, we notice that the most prominent name stands thus: "Consulting Physician-Accoucheur, Dr. R. KING, 17, Savile-row." And the evil results of this method of courting publicity may be illustrated by this one name. The choice of a medical attendant is offered in the prospectus, and such selection is, of course, supposed to be guided by some foreknowledge. Now, we can well imagine an intelligent tradesman (who has read the recent law decisions as to the assumption of titles under the new Act) obtaining access to a Medical Register, to see that his dispensary doctor is all right. What could that anxious inquirer think when he found that the gentleman thus honoured with the title of a physician and the prefix of Dr., being also an examiner of the Apothecaries' Company, was only entered in the Medical Register as M.R.C.S. and L.S.A.?

We regret that, in the fulfilment of our duty, it is thus necessary to trench on personal grounds; but we may not permit any consideration to induce us to sacrifice the interests or disregard the claims of those amongst our ranks whose prosperity is not equivalent to their toil or their deservings, and who can as ill afford their little to be taken away as that poor man whose wrongs aroused King DAVID to self-condemnation.

THE Senate of the University of London has approved the Regulations proposed by its Committee on Degrees in Science. There is no insurmountable obstacle to the first examinations for the new degree of Bachelor of Science being held next year. The Metropolitan University will thus have the merit of initiating an academical distinction that will serve as a bond uniting science and literature. We have observed on other occasions that the sciences of Biology, of Chemistry, and of Geology, have undergone such fruitful development in recent times, that their applications to the practical wants of man are so important, as to have transformed those who were once the simple votaries of science for its own sake, into a distinct profession. Since everyone who comes before the public claiming confidence in a professional capacity is expected to bring some authoritative credentials to support his claim, the boon to the teacher and practitioner of the applications of science, of an academical degree equal in honour and authority to the degrees in Medicine, Law, or Arts, cannot be over-estimated. We have no doubt that the engineer, the miner, the architect, of the next generation, will, as well as the chemist, recommend themselves to their clients by that guarantee of training and acquirements which the initials B.Sc. and D.Sc. will afford.

The regulations adopted evince on the part of the Senate a determination that the new degrees shall be in no respect inferior in extent, severity, or honour, to those which the University has hitherto conferred.

Thus, candidates for the degree of Bachelor of Science shall be required to have passed the matriculation examination, and to pass two subsequent examinations. By this provision every graduate is made to pass through the same initiatory general test, the matriculation. Up to this point the men who propose to follow Theology, Law, Medicine, Literature, or Science, pursue the same course. The first B.Sc. examination will take place once a year, and will commence on the third Monday in July. The second B.Sc. examination will commence on the fourth Monday in October. One year must elapse from the passing the first examination. On passing the second B.Sc. examination, the candidate will obtain the degree of B.Sc.

The higher degree of Doctor must also be earned by examination. The subjects of the first B.Sc. examination are Mathematics, Physics, and Biology. At the competition for honours, the scrutiny into the proficiency of the candidates in these departments of knowledge is carried to a higher point. The subjects of the second B.Sc. examination are Chemistry, Geology, Palæontology, Mechanical and Natural Philosophy, Animal Physiology, and Logic and Moral Philosophy. There is also a subsequent competition for honours; and, as in the case of the other degrees, the candidates are ranged into two divisions, according to proficiency. So far, the subjects in which proficiency is expected are the same for all. The Baccalaureate in Science implies that the graduate has obtained a general, but accurate, acquaintance with those branches of knowledge which are the foundation of the more special divisions of science. But in taking the higher degree, the candidate has the opportunity, by selecting, to a certain extent, the subjects of examination, of giving proof of his superior proficiency in some one or more particular branches of science. The Doctor of Science may "go out," as the academical phrase is, in "Physical Science," in "Biological Science," "Geological and Palæontological Science," or in "Mental Science."

The Senate has very judiciously further resolved, that Bachelors of Arts and undergraduates who shall have passed the first examination for the degree of Bachelor of Medicine, shall be admitted to the degree of Bachelor of Science by passing the second B.Sc. examination.

The next step which, we presume, the Senate will be called upon to take, is the election of Examiners for the new degrees. This event will by itself give no inconsiderable animation and encouragement to the professors of Science. The still closer association of men of science with the University of London,

by enrolling them as graduates, will surely be a source of new strength to the University, and fructify to the public good. We give this early publicity to the decision of the Senate in order to stimulate the industry of those whose studies and views in life may render the possession of these degrees an object of praiseworthy ambition, and to incite them to prepare to compete at the first examinations.

IT is gratifying to perceive that the subject of Adulteration is still continuing, notwithstanding the delays which have taken place in legislating upon it, to attract the attention, and this in high quarters, which its importance so fully justifies, and, indeed, demands.

It was one of the very first subjects alluded to by Lord BROUGHAM in his recent address to the National Association for the Promotion of Social Science:—

"And now," observed his lordship, "as there may be some doubt about the order in which to take the subjects selected for summary mention, let us, in deference to our noble President,—the Earl of SHAFTESBURY,—begin with the Public Health Department, which he so ably superintended last year. At that meeting it appointed a Committee to consider the important subject of the means of preventing Adulteration of Food; and the Council made an elaborate report referring Mr. SCHOLEFIELD'S Bill to the Committee, which approved the Bill, suggesting some material amendments. It was, however, *unfortunately* dropped in the Commons; but the Committee's report will be of great service to Mr. SCHOLEFIELD in preparing the measure for re-introduction."

A day or two after, the Hon. W. COWPER, in an address to the same Association, thus referred to the subject:—

"The microscope is revealing regions as astounding and as interesting as any that the telescope can unfold. Not only is it useful in tracing the hidden incitements to disease, but it is winning its way to the witness-box. Every purchaser of eatables that may be adulterated—and into what articles of food has not perverse and dishonest ingenuity found some means of adulteration?—ought to have within reach some analyst, to whom he might refer for an authoritative decision on the genuineness of the articles offered for sale. I do not care much about penalties if only fraudulent admixtures could be exposed. Let the public know from authority that the Cayenne pepper sold at particular shops is coloured with red lead, and the green pickles with copper; that the loaf, which to the naked eye seems made of the best and purest wheat flour, owes its whiteness to the alum, which gives a fine appearance to damaged and unnutritious flour; and that the beer, which seems so strong, has been diluted with water, then strengthened with narcotic drugs, and salted so as to increase the thirst it seems to quench, and the public may safely be left to itself. When the snare becomes visible to the bird, the fowler will have but an empty bag; and if the purchaser could be enabled to see with the eyes of the analyst, everything necessary would be accomplished for his protection."

We fully concur with Mr. COWPER as to the beneficial effects resulting from the simple exposure of adulteration. It was on this principle that we instituted the Analytical Sanitary Commission, and published its Reports in the pages of this journal. That the publication of these Reports led, at first, to a very great diminution of the evil is unquestionable. This supervision and exposure to be effectual must, however, be constant; and it should be remembered, that since the publication of the articles of the Sanitary Commission ceased, things have been allowed to take their own course, adulterators even gathering courage from the repeated delays which have occurred in legislating on the subject. That adulteration is still rife, may be proved simply by a reference to *The Times* of Monday week. In that journal there is, first, an account of the poisoning of six children by partaking of sugar confectionery coloured with a pigment containing chromate of lead; and, secondly, we are furnished in the City article with the intelligence that a party of gentlemen interested in cotton have just sailed for America in order to devise means to put an end to the scandalous adulterations perpetrated in that important article.

Armed as he is by public opinion, as well as by a large majority of the votes of Parliament, we strenuously urge Mr. SCHOLEFIELD not to lose an hour next session in re-introducing his amended Bill into the House of Commons. On two occasions he has been defeated by the termination of the session. Next time we trust he will take care to give himself ample time to secure his Bill, now advanced to Committee. Everything is once more favourable to legislation on this most important of all the sanitary questions of the day. The Ministers are in favour of legislation, Lord PALMERSTON especially so, and the public are once more fully alive to the subject. It will, indeed, be discreditable to the House of Commons if it should refuse to find a remedy for so flagrant an evil. There is but little reason, however, to apprehend that the House will fail to do its duty in this matter, seeing that the motion for the second reading, in the last session of Parliament, was carried by a majority of more than two to one.

A CASE was tried before the borough magistrates of Kingston-on-Thames a week or two since, which has thus much extraordinary about it, that, although facts were clearly proved in evidence to have occurred in contravention of the new Medical Act, the summons was dismissed on grounds which it is not easy to understand. A Mr. GOULD, a "chemist and druggist" of Kingston, had both styled himself on his door-plate "Surgeon," and had practised as such on a patient who had resorted to him under the belief that he was really a surgeon, although, not having any diploma, he is wholly unqualified to act in that capacity. After the statements had been heard, the Bench, notwithstanding that the truth of his having assumed the title of surgeon, and practised as such, had been made fully apparent, acquitted the defendant on the very fine-drawn and altogether inexplicable pretext that he had not "wilfully and falsely" pretended to be or taken the title of a surgeon. It should be mentioned that Mr. GOULD is an ex-mayor of Kingston, and at present a magistrate of that borough, and that therefore it happened that he was cited before his own colleagues. As, however, we learn that the London Medical Registration Association, by whom the case was undertaken, have already adopted the necessary steps to carry the case before the Court of Queen's Bench, the matter demands no further notice at this time than the remark, that if such a decision as that of the Kingston magistrates is allowed to hold good, the new Medical Act will be greatly depreciated in value.

WE are authorized to state that the announcement which recently appeared in the *Court Journal* relative to the retirement of Sir JAMES CLARK is incorrect

Medical Annotations.

"Ne quid nimis."

VACCINOPHOBIA.

LAST week we gave the history of some ninety thousand lives wasted in the three kingdoms, during one decade of years, by neglect of vaccination. The disease of small-pox is at present fatally prevalent in some metropolitan districts—so much so in Hackney that it has been judged necessary to issue a printed handbill headed "SMALL-POX," and give a list of nine precautions that the inhabitants of any house in which a case of this disease should appear are advised to adopt. Re-vaccination of all persons above seven years of age is the first and most judicious recommendation. No doubt many lives may be saved by this energetic proceeding of the Board of Works, suggested by the health officer, Dr. Tripe.

It is important to contrast the marvellous economy of life, health, and beauty which a careful system of vaccination can effect, with the loss and vital waste which its neglect engenders. It is most interesting, however, from another point of view, to see that, even in the countries where this great boon is most fully experienced and appreciated, some minds can perceive nothing but wickedness, barbarism, and mischief in the device. The ravings of the continental vaccinophobists surpass any ordinary flight of imagination. The most frantic of these diatribes is one entitled "Die Ligue der Impfer in Englischen Blaubuch, und die Protestanten gegen dem Impfzwang, von G. G. C. Nottinger; Stuttgart, 1858." Vaccination is here treated as a Satanic delusion, invented for the deterioration of the human race—an unnatural superstition of the blackest baseness: *nigrum nigro nigrius*. This book must always rank as a curiosity in medical literature. The author commences by attempting to prove that vaccination is opposed to the dictates of God and nature, and to all progress of science, and that it is poisonous to the human body. He prays that, under divine illumination, the eyes of men may be opened to the errors of Jenner, and that pardon may be extended to him. He quotes the petition of the Bodmin Michell to the British Parliament, to the effect that vaccination is nothing more than the planting of poison from disordered cows or children in the bodies of human beings, and, like bad seed, could not produce good fruit. "Nature," he says, "has ordained children's illnesses—measles, scarlatina, small-pox, &c.—for wise purposes, to clear the body from impure matter. In escaping one evil, we only subject ourselves to greater—as scrofula, consumption, blindness, &c. Cow-poison is as strong a poison as strychnine, and why do the vaccinators infuse it into human bodies, and cause all those dreadful maladies—as typhus, inflammation of the brain, cholera, convulsions, &c.?" He considers it a great sin, and thinks it high time that men in the English Parliament should rise to oppose such superstition and conjuration of devils. He compares Jenner with the Pope, and anti-Jennerists with Protestants; freedom of the body with freedom of conscience; and the vaccinating doctors with the Roman Catholic bishops. He warns England against the evils of compulsory vaccination, and points to Germany as a horrid example: the people grow daily weaker and more sickly, yet they dare not move under the pressure of the police.

"Madness laughs like a monkey, and the vaccinator hides himself behind Government. *Roma locuta est.* How small appears the cruel and bloody monster, Nana Sahib, against this people-destroying monster called Police! Jenner's creatures will have only one law—laziness of thinking; one law-book—police; one throne—ignorance; one altar—compulsory 'virusation.' In this way are Right and Reason—the people's voice and knowledge—ruled to death. In this unworthy way is Jenner's statue reared under the cypresses of Arntsbegriff, or the police system. Great Britain's Parliament will put its foot upon the neck of tyrannical madness. The superstition of Jenner and his followers must end; and a wide field is opened to science whereby the lives of millions may be saved."

So ends this singular farrago of insane and miserable nonsense: chiefly remarkable for the perversity of its mis-statements, and the solemnity of its calumnies—for the fanaticism of its denunciations, and the emptiness of its warnings; but remarkable, also, for the number of converts and followers whom it has drawn together, and for the surprising number who have given credence to its ravings. But it is well said that, until we analyze a philosophy in respect of its inducements, independently of its rationality, we shall never be in a condition to estimate that philosophy by the mere *number* of its adherents.

DUTY'S POWER: MERCY'S FUNCTION.

No higher type of heroism can be suggested than that of the surgeon who follows his mission of mercy amidst death, though surrounded by all the accessory discouragements of hardship, and warned that his failing health will hardly bear the strain which a sense of duty imposes, without danger to his life. When such a man, who bravely pursues his patriotic and merciful labours, in time of war, amongst his wounded countrymen, and brings uniformly to their aid energy and skill such as call forth continued eulogy upon his efforts, sinks at length in the performance of his duties, his example should be cherished and his services rewarded by grateful care of those whom he leaves dependent upon his country. Such, we are told, was the history of the late Mr. Richard Blizard Power, assistant-surgeon, Royal Navy. His death was occasioned by the arduous duties in which he was engaged in the Crimean war (as stated by medical certificate). He was ten years in the service; was at the battle of the Alma, where he saved the lives of twenty-five men who would otherwise have been left on the field as dead; was at the storming of the forts of Sebastopol in H.M.S. *Sans-pareil*, when eleven were killed and sixty-one wounded, and he performed sixteen capital operations, being the only assistant-surgeon on board. He received the personal thanks of Lord Lyons, a special letter of thanks from the Medical Inspector of the Fleet, and, from the great skill and humanity witnessed by his commanding officer, Captain Dacres, his services were brought before the notice of the Admiralty. He was stationed at Balaklava during the winter, where he attended professionally French, Turks, and Russians, never flinching from the most painful and self-denying duties, but continuing to perform them to within a few days of his decease.

He was the sole support of a mother, whose small funds were exhausted in the expenses of his education and outfit. Neither the rules of the service nor the regulations of the Patriotic Fund permit of any relief being afforded from those sources to satisfy the claims of the widowed mother, though there is neither wife nor orphan to relieve. Mrs. Power has entreated our aid to make known her need through the columns of THE LANCET. Surely hers is a case which should not pass unregarded: her case constitutes a claim which cannot but evoke practical sympathy.

PRESCRIBING DRUGGISTS IN HOXTON.

FEW men can so perform the duties of a public office as to conciliate the good opinion of all; and whoever is prominent by office, capacity, or success, may commonly anticipate occasional detraction and smothered enmity. It is a compliment to his integrity when the attack proceeds from obviously interested and unworthy sources, and when the complete disproof of the charge alleged testifies to the difficulty with which malice finds weapons for the assault.

Mr. Coward, one of the Poor-law medical officers of Hoxton, has been assailed by a Mr. Cockerton in a letter to the Poor-law Board. The charges were examined in detail by the Board, who declared them to be "false, frivolous, and vexatious; and expressed its undiminished confidence in the ability and kind-

ness of Mr. Coward in the discharge of his duties." Mr. Bagley, who seconded this resolution, "expressed his astonishment that such fabrications should ever have been made." Mr. Coward gave an account of his assailant, which has so much public interest, in relation to other similar cases, that it is right that it should be quoted here. He said that—

"Mr. Cockerton was not a surgeon, but merely a druggist; that some seven years ago, when he came to reside in the locality, he desired to establish a self-supporting dispensary, and he requested him (Mr. Coward) to be one of the surgeons, to which he consented, and attended there a few times; but finding him utterly ignorant of the profession and unable properly to prepare his prescriptions, he soon bid him good-bye; and as there were several of these unlicensed practitioners about the neighbourhood, the qualified medical men united to put an end to their illegal practices, and succeeded in doing so to a great extent; but they were unable to do so with this Mr. Cockerton—as he always associated himself with Mr. Dow, a surgeon in the neighbourhood—until the recent Registration Act, when he took down the word 'surgeon' and wrote up the word 'chemist.' This was the sole cause of the animosity which Mr. Cockerton had against him."

It is not often that the secret history of these self-supporting provident dispensaries is brought so plainly to light by the confession of those behind the scenes. But we have more than once declared that the majority of them are no other than trade speculations which aim at the benefit of the individuals who found them, and seek to find their account in cheapening yet further than at present medicines and medical advice. They have no right to any other position than that of trade speculations, and are not entitled to solicit eleemosynary support from the benevolent, and assume the false character of philanthropic enterprises. Their peculiar constitution, moreover, affords inducements for a combination between surgeon and druggist, which was always discreditable and is now often illegal.

THE HOSPITAL FOR SICK CHILDREN.

A WORD of admonition may, perhaps, be usefully addressed to the students of medicine on the subject of children. There are no patients whose ailments it is more difficult to comprehend, or more important fully and immediately to appreciate. Disease with children is rapid, fatal, and recondite; it demands more than ordinary study. Yet the obvious difficulties of receiving any but a very small number of children in the public hospitals for adults diminish greatly the student's opportunities of watching the course and treatment of infantile ailments. There is, however, an Hospital for Children in Great Ormond-street, London, where a rich field of observation exists in all the maladies of childhood; there they are aggregated in numbers, and flock daily in increasing proportion as compared with the out-patients' side. Hitherto there has been no clinical department attached to that hospital; but we are gratified to find that it is now thrown open to students, and that professional instruction has been organized. We strongly advise students to avail themselves of the clinical teaching which is afforded there. The lectures are delivered on Saturday afternoons, and we do not know how any student can spend that which is generally an idle hour to better or more fruitful purpose. The lives of children are a peculiarly sacred trust to the medical practitioner. London alone, of all great cities, has hitherto been without an organized clinique for diseases of children. It was a great defect now well remedied. We should be glad to see that the students and practitioners of medicine evince, by their earnest reaping in this field, that they are not indifferent labourers in their vocation, and not insensible to the import of the crusade against infantile mortality which we really believe to be now well begun.

A WINDFALL FOR BATH.

MANY rusty enactments encumber the bequeathal of property to public hospitals and charitable institutions. By their action the intention of benevolent testators is often defeated; and not many months ago, a metropolitan hospital was cast in a suit to recover £60,000, bequeathed under conditions which were declared to annul the gift. The Bath hospitals have been more fortunate: they have recovered a legacy due to them some seventy years since, and greatly increased in value by the accumulation of years. At the last monthly meeting of the Bath Charity trustees, it was announced that an unclaimed fund of some amount existed in the Court of Chancery, belonging to the hospitals of Bath. It appears that about 1790 a legacy of £500 was bequeathed to the Bath hospitals, and that the affairs of the testator who had given the legacy were administered under the direction of the Court of Chancery. The money was set aside to meet the legacy, but, from some unexplained cause, had never been applied for. During the long period of seventy years, the legacy has now accumulated to £3450, which is divisible equally between Bellott's Hospital, the Bath Mineral Water Hospital, and the Bath United Hospital, as those three institutions alone come within the wording of the bequest—namely, "To the different hospitals of Bath, for the relief of such objects as are annually sent to them."

SANITARY SCIENCE.

THE physician who should formerly have pretended to claim for preventive medicine, for hygiene, for sanitary science, for the discussion of infantile maladies, a share of public attention as great as is devoted to the important political questions concerning the politics of Little Pedlington, and the probable disposition of the five men constituting the army of the Duke of Sax-Stickingen, would assuredly have been laughed to scorn; yet it is now seen that these are matters which touch our national greatness very nearly, and concern our personal happiness and welfare very deeply. It has been shown very clearly now to all the world that many thousands annually die amongst men, women, and children,—probably one hundred thousand in England,—whose lives are cut short by diseases, which, in the ordinary course of nature, would not have assailed them.

This great truth has been very frequently impressed upon the public in the pages of THE LANCET, and it is perhaps principally to the press that we owe the earnest feeling which has taken possession of the public mind on this subject—a feeling which promises to grow daily until the little rivulet that struggled on in an unlovely and difficult channel shall have swollen to a great current, which will wash away and purify much of physical uncleanliness.

The great meeting of the Social Science Association is an embodiment of an idea which we have seen arise, grow, and flower in abundant usefulness, in our own century. It is one of which we have great reason to be proud, and which will give a character to these times that will not quickly fade.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

MONDAY, OCT. 24TH, 1859.

DR. E. SMITH IN THE CHAIR.

THE proceedings of this evening were of a desultory character, as no paper was announced to be read and discussed.

Mr. E. CANTON exhibited some fluid which had been taken from an old hydrocele, and which was peculiar from the fact of its containing a large quantity of cholesterine—a circumstance which Mr. BRYANT, however, regarded as not uncommon.

THE DEODORIZATION OF FOUL ULCERS.

Mr. WEEDEN COOKE referred to the sulphate of lime and coal tar which has lately been much used and extolled in the

French and Italian hospitals for the purpose of cleansing foul and sloughing ulcers. He had himself employed it, and thought that its virtues and advantages were much overrated; that it sometimes produced more irritation in the part than was desirable, and that it was less convenient in application than other equally effective cleansing remedies, whilst it was far inferior in value in sloughing ulcers to that combination of the manganate and permanganate of potash called "manganese cum potassâ." A distinction should be drawn between ulcers secreting unhealthy pus which rapidly decomposed, and ulcers that were foul because of sloughing tissue which would not readily come away. In the former class the chlorate of potash lotion was the neatest and most effective agent in cleansing the ulcers, and rapidly neutralizing the smell by the amount of oxygen which was contained in the salt. The carrot poultice, the charcoal poultice, and chloride of lime were also very useful in this form of foul ulcers, but none of these was thoroughly effective in foul sloughing ulcers. In these the root of the slough must be destroyed by some caustic application, and this was best effected by the application of manganese cum potassâ upon a small piece of lint the size of the slough. It is very quick in its action; in the course of twenty-four hours the slough generally came away, and with it all the foul odour which had previously been so offensive and injurious, not only to the patient, but to all whose duty it was to be in attendance.

In the discussion which ensued, various applications were mentioned by different speakers, such as charcoal, nitric acid, the tincture of perchloride of iron, lemon-juice, &c. The tincture of the perchloride of iron produced so much pain that the French surgeons in the Crimea had reported against its use. Lemon-juice and nitric acid, diluted according to the circumstances appertaining to the condition and the nature of the sore, were found to be the most efficacious; and Dr. JAMES BIRD remarked, that the experience of the French surgeons coincided with his own. When in India, he had found the application of nitric acid, properly diluted, to be the most effective of all remedies, both in hospital gangrene and offensive ulcers.

Mr. DE MÉRIC referred to some experiments lately instituted in France for the treatment of tetanus by the use of the wourali poison, administered internally, and applied externally to the wound. The result was not satisfactory. He mentioned some experiments performed by Sir Benjamin Brodie, nearly fifty years ago, on the action of the poison in question. Sir B. Brodie had arrived at the conclusion, that in the French case the remedy employed had had no real influence. Mr. de Méric entered into an argument to show that it was necessary, in order to arrive at a just conclusion respecting the effect of remedies in tetanus, to determine the nature of the particular case in which the treatment had been employed. He mentioned a case which had occurred in his practice at the German Hospital, and others, to show that in some instances of the chronic form of the disease patients seem to recover altogether independently of the remedies which may have been administered.

Some discussion ensued as to the mode of preparation of the wourali poison, which was kept secret by the Indians, and is consequently uncertain in its effects.

WESTERN MEDICAL AND SURGICAL SOCIETY.

TUESDAY, OCTOBER 25TH, 1859.

THE fourteenth session commenced this evening at the rooms in Sloane-street, on which occasion a *soirée* was given to the members and their friends by the President and Council of the Society. Various objects of interest were exhibited on the tables, Mr. Pillischer lending his valuable microscopes for the occasion. The interesting collection of scientific portraits by Messrs. Maull and Polyblank also excited much attention, as did also a collection of drawings by the late Sir Charles Bell, which was kindly lent by University College. The company separated about half-past ten, after enjoying a pleasant scientific *réunion*.

THE BRITISH ASSOCIATION.

THE SPECIFIC CHEMICAL AND MICROSCOPICAL PHENOMENA OF GOUTY INFLAMMATION.

BY A. B. GARROD, M.D., F.R.S.

THE author remarked that many and discordant views were held concerning the nature of gouty inflammation, and such diversity of opinion arose from the fact, that up to the present time no characteristic structural change had ever been demonstrated to accompany it. The object of his communication was to supply that deficiency, and prove that special chemical and microscopical phenomena invariably attend true gouty inflammation. After alluding very briefly to the views held by the ancients, and within the last century by Murray, Forbes, and Wollaston, and by Cullen and his followers, and of the difficulties which each had to contend with in applying their hypotheses to the explanation of the various symptoms of the diseases, he proceeded to speak of his discovery of the constant presence of uric acid in the blood in gout, and his subsequent researches in the nature of that disease. From these he first drew the three following conclusions:—1. In *health*, the blood contains minute traces of urate of soda and urea, and probably of all the principles destined for excretion; but the quantities are so small, that the most careful and refined analysis is required to demonstrate their presence. 2. In *gout*, the blood is invariably rich in urate of soda, and uric acid can be readily crystallized from it. 3. In by far the greater number of diseases the blood is free from an abnormal quantity of uric acid, but in certain cases of albuminuria, lead-poisoning, and other affections, its presence can be demonstrated, and still no gouty inflammation ensue. Lastly, in many gouty subjects the same condition exists in the intervals of the paroxysms. From these conclusions, Dr. Garrod considered it evident that something more than the mere presence of urate of soda in the blood was required to produce gouty inflammation, and his next object was to ascertain its nature. For this purpose a careful examination of the joints which had suffered was required, and within the last few years many opportunities had fallen to his lot. The subjects of these examinations are divided into four classes. 1. Subjects of chronic gout with extensive chalk stones. 2. Subjects of gout with no appreciable deformity, and no visible deposits of chalk stones, except one or more specks on the external ear. 3. Subjects of gout in whom no trace of chalky matter was externally visible, and in one case only eight attacks of the disease had occurred. 4. Subjects in whom only a single joint (the ball of a great toe) had been affected with gouty inflammation, or in whom some joint had only been once slightly inflamed. These examinations proved beyond the possibility of doubt, that in the very slightest forms of the disease, as well as the most severe, a structural change invariably occurs, and that this change, when once produced, remained, if not permanently, at least for a very lengthened time. After detailing the microscopical and chemical characters of the deposit producing this change, Dr. Garrod finished his communication by stating that he considered the facts which had been brought forward warranted him to conclude that—"Specific, chemical, and microscopical phenomena invariably accompany gouty inflammation, and these consist in the deposition of urate of soda in a crystalline form within the cartilages and ligamentous structures of the joints, and that such deposition is altogether pathognomonic, never being found in any disease other than true gout;" and again, that "Such deposition is probably the cause, rather than the effect, of the inflammatory action." Lastly, the author pointed out the great importance of ascertaining the true nature of the disease as a means of conducing to its rational and successful treatment.

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

QUARANTINE.

AT the recent meeting at Bradford, in the section of Public Health, presided over by the Right Hon. W. Cowper, a preliminary report from the Sub-committee on Quarantine, which had been appointed by the Association last year at Liverpool, was read by Dr. Milroy, the honorary secretary of the sub-committee.

The queries* which had been drawn up with much care for the purpose of eliciting authentic and exact information on the numerous and varied topics connected with this intricate subject, have been extensively circulated. The Earl of Shaftesbury, the then president of the section, brought them under the attention of the Foreign and Colonial Secretaries of State, with the view of having them transmitted to all British consuls abroad, and to the governors of our different colonies. Lord Malmesbury and Sir E. B. Lytton cordially approved of the scheme, and immediately took the necessary steps in their re-

* These queries will be found in THE LANCET of April 30th, 1859, p. 447.

spective departments to give effect to the wishes of the sub-committee. Already a large amount of most valuable material has been obtained through these channels, the replies of upwards of seventy consuls in almost every part of the world, and of at least twenty colonial governors, having been received. Many of these replies are accompanied with important illustrative documents.

The Directors-General of the Army and the Navy Medical Departments also, both of whom are members of the sub-committee, caused copies of the queries to be forwarded to their principal medical officers serving abroad, inviting the co-operation of these gentlemen in the inquiry. A good many answers from both services have come to hand.

Application was likewise made to the medical officers of the Royal Mail Packet steamers which leave Southampton for the Mediterranean, the West Indies, and South America; but as yet no replies had been received through this channel.

Dr. Foote, of Constantinople, who, from having acted as Medical Inspector under the General Board of Health in this country, and subsequently served in the Crimea, has for many years past had his attention turned to sanitary inquiries, has, in conjunction with other gentlemen in that city, formed a Committee there, to carry out a local examination of the working of quarantine in Turkey, and has undertaken to report the results to the Association.

By means of the information from these various channels, the sub-committee will be enabled, they believe, to draw up for the meeting of the Association next year a Report which will materially elucidate the system that has been hitherto pursued, and thus aid in the solution of one of the vexed social problems of the day, in which the public generally, as well as the medical profession, are deeply interested.

As the results of the International Quarantine Conference, which was held at Paris in 1851, and at which medical and consular delegates from most of the European states attended, have never been made publicly known, it was deemed advisable to have prepared a short account of their proceedings, and of the principal conclusions at which they arrived. The official minutes (which were printed by the French Government, but not published) were, therefore, carefully examined, and a summary of their contents drawn out. This formed the subject of a second paper, which was read by Dr. Milroy at the Bradford meeting. It was the more necessary that the labours of the Conference should be ascertained, as it had transpired that the majority of the powers, including this country, represented at the meeting, had declined to adopt and ratify their conclusions. It is understood that at the present time the subject is again under the consideration of the different Governments, and that meetings are now being held in Paris amongst the consular delegates, in the hope of arriving at some uniform and reasonable line of practice. The existing state of things is, in very many respects, inconsistent with common sense as well as with medical science, while it is felt to be most vexatious and oppressive to commerce and international intercourse.

Correspondence.

"Audi alteram partem."

CAN WE NOT CONDUCT OUR VACCINATION MORE EFFICIENTLY?

"The number of deaths from small-pox in England, Ireland, and Scotland during the last ten years, is estimated at ninety thousand."—THE LANCET October 22nd, 1859, p. 418.

[LETTER FROM MR. W. E. C. NOURSE.]

To the Editor of THE LANCET.

SIR,—The increase of small-pox in this and other parts of the kingdom cannot, while it lasts, be too frequently brought forward as a proof that there is still something wrong about vaccination, either in the process itself, or else in the Act of Parliament which regulates it. I more particularly address myself to the former, since some improvement in vaccination must precede any attempt either to legislate further upon it, or to apply the existing law more closely.

The supply of vaccine from private sources is good in quality, but very precarious. That derived from public sources is supplied regularly, but is of inferior quality. Thus, the National Vaccine Establishment can always send lymph; but it is taken from children whose health is deteriorated by living in London, and is not always recent, in spite of the best management of the inspector. And the district vaccinators too often carry on the vaccination in a wholesale, careless manner, in many cases by unqualified assistants, who are far from competent to their task, and who are so hurried by the amount of their duties, that it is impossible they can exercise due care in the selection of subjects from which to vaccinate. For example, *I have seen a child with an eruption, which, if not syphilitic, was at least suspicious, picked out from several others as the proper one to vaccinate from!* It is true that certain of the vaccinators are very careful, and can supply some of the best lymph in the country, but such is not the general rule. There is therefore no regular and publicly available supply of the best description of recent vaccine. The result of this is, that the lymph most accessible is of inferior kind, being either too long kept, or derived from children not in the strongest health, or carelessly selected and taken; that, owing to the uncertainty of the private supply, vaccination must either be done with this doubtful lymph, or else be postponed, as it often is, in hopes of meeting with a favourable recent case, far beyond the very limited period allowed by law; and that this evasion of the law is familiarized to people's minds, inducing them to think little of letting children remain unvaccinated. Furthermore, small-pox after vaccination is more frequently heard of than formerly, doubtless owing to some want of efficacy in the lymph, from the causes just named; vaccination is sometimes followed by local irritation, (query, from vaccinating at too tender an age?) eruptions, or other illness; and from an exaggerated view of these things, public confidence in vaccination is so shaken, both as to its protective powers, and as to the purity of the lymph, that the Act of Parliament is evaded, and many children, never vaccinated at all, become sooner or later the subjects of small-pox, and centres of infection.

It is not easy to name a remedy for these defects; but clearly, instead of from the crowded populations of towns, our chief supply of vaccine should be from the healthy and vigorous children scattered all over the country. It is from them that we ought to vaccinate the town children, and not to send town vaccine into the country; and we ought to be able to procure the best recent vaccine regularly: there is plenty for all, if it were but evenly distributed. How to prevent medical men from leaving the district vaccination to their unqualified assistants I do not know; it is an unjustifiable form of self-interest very difficult to fight against. I presume the first step would be to pay them better. I heartily wish that you, Sir, who have done so much, would take the matter up, and also that some of your correspondents, who may see their way more clearly than I do, would state their views on this most important subject.

The only suggestion that occurs to me is this—that the selection of a proper subject and a suitable vesicle to vaccinate from, the right mode of operating in two or three different fashions, and due inspection of the results on the eighth day, should be made a subject of special practical teaching in every one of our medical schools; one vaccinating day in the week being fixed, the poor of the neighbourhood encouraged to bring their children, and the pupils of the hospital directed in the different proceedings by a proper officer appointed on purpose. Fresh lymph ought to be often procured from some country surgeon in large practice, an arrangement which the staff of an hospital, with their extensive connexions, could have no difficulty in effecting. This would at least teach the pupils the different steps of vaccination in something better than a chance fashion.

And it would be a further point gained if any spare country lymph were kept by the hospital vaccinator as a depôt for the supply of the hospital staff, their immediate friends, and the old pupils of the hospital. For if the latter, scattered in practice over all parts of the country, knew that there was a special officer in charge of vaccination at their old school, many of them would gladly send to him their surplus vaccine when they had a good supply, on the simple condition of receiving similar vaccine from him when they wanted it. This might so extend that every medical school would become an exchange for the circulation and distribution amongst its own connexions of healthy country lymph. There is always some young qualified man about every school who would undertake the office, if, as vaccinator, he were duly recognised on the staff of the hospital; and distant applicants for lymph would be only too glad to be able at all times to secure reliable vaccine by merely enclosing a few stamps for postage. Could this scheme be carried out in its fullest extent, and be worked honestly to its

utmost by the goodwill of all concerned, all of whom would participate in its benefits, a complete revolution in the matter of vaccination would be effected all over the kingdom. A purer vaccine would be circulated; it would be more regularly procurable; stale lymph need never be employed; every pupil would be duly instructed in the several steps of vaccination; and the knowledge that such care was universally taken to ensure a regular supply of recent, reliable, and healthy lymph at known and numerous depôts, and to ensure competence in the matter on the part of all pupils who pass through the medical schools, would restore the confidence of the public in both the efficiency and the safety of vaccination, and would remove the chief reasons for objecting to its performance.

Should this suggestion be feasible, or should it give rise to any better plan that may be feasible, I shall feel but too happy in having propounded it, and so given my aid to the solution of a troublesome problem. I sincerely hope that the matter will not rest here.

I remain, Sir, your obedient servant,

Old Steine, Brighton, Oct. 22nd, 1859. W. E. C. NOURSE, F.R.C.S.

ON THE IDENTITY OF PARASITIC FUNGI OCCURRING ON THE HUMAN SUBJECT.

[LETTER FROM DR. J. LOWE.]

To the Editor of THE LANCET.

SIR,—Dr. Fox has, I think, dealt with this subject so fully and clearly, that there remains little to be said—*quoad* proof derived from clinical evidence. I would, therefore, merely remark upon one or two points connected with the microscopic characters of the parasites, and cite a case or two corroborative of the *clinical* view of their identity.

1. With regard to variations in form and size of the fungi. These may be, under certain conditions, almost endless. The true *specific* distinction is to be found in the fructification. In the absence of this we cannot *safely* assign the mycelium to any particular genus or species. The shape, then, of the *mycelium* is no criterion. What of the spore? Dr. Fox quotes an authority who says, that the oval character of the spore of achorion is of great value when compared with the round spore of trichophyton. I quite agree with Dr. Fox in thinking that the oval form is not peculiar to achorion; it is merely a peculiar condition of the spore depending upon its stage of development, and may be modified by external circumstances. We may, I think, assume it as a fact, that, in all the mucor-like fungi, and the parasitic ones in particular, the *aërial* spores or *gemmæ* (for these, I believe, are not the *true* reproductive spores of the plant), are spherical. These I have previously explained may, under favourable conditions, retain that form, and may multiply endlessly, as in yeast. But on the human skin the round spores soon assume an elliptical form, and ultimately elongate to form a mycelium, in the same manner as yeast-cells act in an acid matrix. It may, however, be doubted whether the oval spores in favus are really derived from the fructification.

I have observed in the vine fungus that the terminal filaments, as soon as they become aërial, assume a clavate form, and give off cell after cell, all of which are oval. This is effected by segmentation of the clavate bodies; and it is worthy of remark, that the distal cell is given off before another segment becomes oval. The result of this process is that a pulverulent mass is formed on the surface of the leaf, much in the same way probably as the mass of cells accumulates in a favus crust.

The *spherical* cells only are, I believe, found to be attached in a moniliform manner to a fructiferous stalk. The oval cells, when placed in a saccharine solution, soon become spherical; but when they have commenced to germinate, they again become oval, and finally linear.

The *puccinia* noticed by Arnsted was doubtless an accidental visitor in favus, as the spores are abundant in the atmosphere; or it is still more probable, as Dr. Fox suggests, that Arnsted mistook an unusual form of the achorion for the fungus in question. I have never yet found this peculiar body on the skin, but I have produced and figured one from the growth of favus-cells, so closely resembling a puccinia as to explain readily how such a mistake might occur. This body is, I believe, a *true* reproductive spore formed in a saccule of the mycelium (an *ascus*, if this view be correct). The discovery of sarcina, by Dr. Fox, in tinea tonsurans is peculiarly interesting, as confirmatory of Mr. Berkeley's belief that sarcina was merely a form of penicilium or aspergillus. The latter gentleman attempted to prove this by experiment, but failed. The discovery, by Mr. H. O. Stephens, of the quarternate spores of sarcina on a South American fungus, led Mr. Berkeley to express his conviction of the truth of his ideas on this subject. (*Gardeners' Chronicle*, Aug. 29th, 1857.) I do not think there is the slightest ground to doubt the accuracy of Dr. Fox's observation, more especially since the discovery has been to some extent forestalled by the expressed opinion of so eminent a mycologist as Mr. Berkeley.

The day after the above was written, I accidentally met with the *sarcina* under singular circumstances. Some months ago I placed a quantity of crystals of cholesterine, which I had obtained from a hydrocele, in a small vial, having previously washed them. A mass of fungus formed in the bottle, which, on examination, proved to contain sarcina. We have thus an additional proof of the truth of Mr. Berkeley's view.

Dr. Fox gives a case of tinea tonsurans, degenerating into favus, in consequence of irritation and increased secretion. As a sequel to this, I may mention, that during the time when I was experimenting with favus crusts, a member of my own family was attacked with favus. There was only one spot of the disease, but this was a most perfect specimen. To this I applied strong sulphuric acid, and subsequently tincture of iodine. The result was, that in two or three days I had a complete case of tinea tonsurans; which lasted about ten days longer. At the same time as this case occurred, I was myself affected with herpes circinatus.

A case which occurred in the skin wards of the Edinburgh Infirmary, under the care of Professor Laycock, in 1857, very fully confirmed the view of the identity of parasitic diseases, and formed the subject of a clinical lecture, in which this opinion was strongly upheld. The patient, if I recollect rightly, had been in charge of some cows affected with tinea tonsurans. On admission, he was almost covered with eruption, presenting a most singular medley of skin diseases, from lichen to herpes, in almost every form, and where any source of irritation existed, ending in ecthyma and lupus. The transition in all cases was gradual and regular, and the Professor remarked that they were evidently merely modifications of the same parasitic disease.

I am, Sir, your obedient servant,

October, 1859. JOHN LOWE, M.D. Ed.

THE CHOLERA AT GLASS HOUGHTON,

AND THE PROBABLE CAUSES OF ITS SPREAD AND DECLINE.

To the Editor of THE LANCET.

SIR,—As everything tending to elucidate the causes of cholera is of public interest, I beg to send to you the following observations, the results of my investigations into the causes of a very severe outbreak of that disease in the small village of Glass Houghton, about two miles from Pontefract. These investigations were made chiefly because the village of Glass Houghton is in the parish of Castleford, of which district I am the officer of health, though I am sorry to say the district under the Health Act does not include the former place.

Glass Houghton is three quarters of a mile from Castleford, and stands on the slope of the limestone. It is, as a general rule, very badly drained. The cases of cholera have all occurred at the eastern end, and to the centre of the village, in houses where the drainage is bad, and where the dwellings are rendered damp in consequence of their standing below the rock, in excavations varying from four to nine feet in depth. The face of the rock, in three instances, either formed the wall of the house, or was in direct proximity to it. The inhabitants were in the habit of throwing their waste water and refuse immediately in front of their houses, or into the public road, no drains existing to carry it away, beyond the natural fall of the roadway. But as these causes were in existence in other parts of the village, which is generally in a dirty state, I was naturally induced to seek for some other exciting cause, and as previous investigation had led me to suspect, in very many cases, that impure water was a strong exciting cause, I examined the water used at this the eastern end of the village. This examination inclines me to believe the outbreak entirely attributable to an impure water supply.

The inhabitants obtain their water from two wells, one at the eastern end, another at the western end of the village. The water in the former well, called the "tup" or "top well," in the dry weather had become very low and scanty—in fact,

it was almost dry. The pathway to the well is up a steep incline, thirty or forty yards in extent; it then descends ten or fifteen yards. This path is bounded by a hedge, and is lower than the surrounding ground; it therefore formed a ready channel for water, in the time of heavy rains, to the well. To the last portion of this path the children of the district and others resorted for the calls of nature and for play. The amount of filth, therefore, collected in the dry weather preceding the late rains, was very considerable on and about the path and sides of the open well.

The heavy rains in the close of September consequently washed all this filth, leaves, &c., into the well, along with filtrations from gardens immediately surrounding it, and added a disgusting impurity to it. The cases of cholera have all been amongst those families who used this water; few of those who used the water of the other well suffering from even diarrhœa in any form, though the water was full of animalculæ, &c. I examined the water in the two wells both microscopically and chemically. Each contained lime, &c.; but that in the top well had abundant evidence of the existence of drippings from manure, and also small particles of refuse and feculent matter in a state of decomposition.

The first case occurred on October 4th, and the second also on the evening of that day, in the houses nearest the well. Four cases happened on the 5th. These were reported to me by the registrar, and on discovering the facts I have mentioned the inhabitants ceased to use the well water on or about the 8th of October; since that time the disease has declined as rapidly as it began, the deaths standing as follows:—Two deaths on the 4th of October, four on the 5th, one on the 8th two on the 9th, one on the 10th, and one on the 14th. There has also happened one death since from the consecutive fever, in a woman taken ill on the 6th of October. The total deaths thus far, therefore, are twelve, over a portion of the village containing perhaps fifty-five or sixty people, the number of persons affected being about twenty-seven or thirty.

Yours obediently,

Roper Gate, Pontefract, Oct. 1859. J. H. SIMPSON, M.B.

"IS CHLORATE OF POTASH SO INNOCENT A REMEDY THAT IT MAY BE INDISCRIMINATELY ADMINISTERED?"

[LETTER FROM MR. WEEDEN COOKE.]

To the Editor of THE LANCET.

SIR,—An interesting communication, with the above heading, from Dr. Osborn, of Southampton, in THE LANCET of the 8th instant, illustrates a truth which perhaps will bear a little further ventilation. The fact I refer to is, that no medicine which has any real power in arresting diseased action can be innocently administered in opposite states of the system, whether of health or disease. Can quinine—can iron or mercury, or opium, be innocently administered in conditions not fitted for their use? In many cases chlorate of potash is no less beneficial than these sheet-anchors of our art, and if so beneficial, then, as a necessary consequence, injurious in states of the system not calling for its administration. In my hands chlorate of potash has proved a tonic of the very highest value in all adynamic conditions, and at all ages; but more especially in hectic states of the system when quinine and iron were inadmissible. So powerful is it in oxidizing or decarbonizing the blood when the liver and skin have failed in their offices, that I believe, from a very large experience of its effects at the Royal Free Hospital, that there is no tonic comparable to it in the sequelæ of the exanthemata, (otorrhœa, anasarca, and cachexia of all kinds,) in all scrofulous diseases, whether of bone, gland, or tissue, as well as in those indicated by Dr. Osborn—viz., necrosis, leucorrhœa, gleet, and secondary syphilis. Agreeing with Dr. Osborn in the inexpediency of its administration in all acute inflammatory attacks, I think that in reviewing those numerous diseases in which there is want of power, I know of none in which the chlorate of potash, either solely or in combination with iron, quinine, or the other vegetable tonics, may not be advantageously employed.

I believe the dose of this medicine is now pretty accurately defined. From one to fifteen grains three times a day is the range I have found effective and safe. I give the child of one year old, one grain; of two years old, two grains, and so on up to seven years; after that a more gradual increase—say, a grain every two years, until about eighteen years, when the full dose of fifteen grains may be employed; and this dose rarely requires to be increased at any age.

Having said thus much of the value of chlorate of potash administered internally, I would beg permission to add a word or two on its remarkable topical effects in various ulcers. It is invaluable in foul chronic ulcers of the legs; in tertiary sores not of an inflammatory character; in ulcers of the mouth and tongue, arising either from syphilis or cancer, or cancrum oris, or necrosis of the jaws; and especially so in cleansing and deodorizing, and indeed healing, many of the foul cancerous ulcers occurring in various parts of the body. I have employed it in all these lesions at the Cancer and the Royal Free Hospitals, as well as in private practice, for many years, and am daily reminded of its inestimable benefit wherever there is an absence of active inflammation.

The strength of the solution must of necessity vary under different circumstances. In the greater number of instances, eight grains to the ounce of water is the strength I employ, but this is too strong for the mouth, and generally for the breast. Trusting you will give circulation to this testimony in favour of a most useful, and happily at the same time, tasteless medicine,

I am, Sir, your obedient servant,

WEEDEN COOKE, F.R.C.S.,

Surgeon to the Royal Free and the Cancer Hospitals.

Upper Berkeley-street, Portman-square, Oct. 1859.

A NEW METHOD OF APPLYING CHLORIDE OF ZINC.

To the Editor of THE LANCET.

SIR,—I am not sure whether there is any originality in the following process, but if there be I think it is worthy of the attention of the profession:—

I have often used, and oftener seen used, the chloride of zinc as a caustic; I have mixed it, or seen it mixed, or heard or read of its being mixed, with flour, starch, arrowroot, plaster-of-Paris, and a variety of other substances; but none of them appeared to me altogether satisfactory. A short time ago it occurred to me that it might be a good plan to form the chloride of zinc, mixed with the sulphate of lime by the double decomposition of solutions of chloride of calcium and sulphate of zinc, of such strength that the result would be a paste or magma suitable for surgical application as a caustic. After some calculations and experiments, I devised the following formula, which I beg leave to introduce to the notice of the profession, especially those members of it who practise surgery:—

Dissolve fifty grains of prepared chalk in two drachms (by measure) of commercial muriatic acid; dissolve a hundred and fifty grains of sulphate of zinc in two fluid drachms of boiling water. When required for use, mix the two solutions, and the result will be a paste weighing nearly an ounce, and containing about one-sixth of pure chloride of zinc. The proportions are nearly, but not exactly, those indicated by the atomic weights. A little study would easily produce a paste of harder or softer consistency.

Trusting that the suggestion which I have offered may, if original, bear good fruit,

I am, Sir, your obedient servant,

Lerwick, October, 1859. G. W. SPENCE, M.D.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on

Thursday, October 20th, 1859.

BARRETT, ALFRED EDWARD, Eton, Bucks.
GORDON, PETER, East Indies.
GRABHAM, CHARLES.
GRIFFITH, JOHN, Bangor, North Wales.
LAWSON, JOHN EDWARD S., Egremont, Cumberland.
JONES, JOHN, Cliftonville, Brighton.
THORNHILL, DAVID CLARKE, Stratford, Essex.

The following gentleman also, on the same day, passed his first examination:—

BROWNE, FRANK HARVEY, Stow Maries, Essex.

ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.—The following gentlemen, having undergone the necessary examination, were admitted Licentiates:—

GLENTON, FREDERICK, M.R.C.S., Redcar, Yorkshire.
GRAY, WILLIAM J., M.R.C.S., Fareham, Hants.
HAY, HENRY H. O., M.R.C.S. & L.S.A., Sunderland.
OSBORN, CHARLES, M.R.C.S. & L.S.A., Bognor, Sussex.
PILKINGTON, WILLIAM, M.R.C.S.E. & L.S.A., Chorley, Lancashire.
PITT, JOHN BALLARD, F.R.C.S. & L.S.A., Norwich.
WARCUP, WILLIAM MARK, M.R.C.S.E., Scarning, near East Dereham.

MARISCHAL COLLEGE AND UNIVERSITY, ABERDEEN.—At the late graduation term, the degree of M.D. was conferred, after the usual examinations, on the following gentlemen:—

HILDITCH, EDWARD.
POLSON, JOHN.
WADES, JOHN WADE BROWN.

And the degree of M.B. was conferred on

JASDOWSKI, JAMES BRONISLAS.

At the same meeting, JOHN OGILVY, M.B. of this University, was promoted to the degree of M.D.

UNIVERSITY OF ST. ANDREWS.—The following is a list of the gentlemen on whom the degree of Doctor of Medicine was conferred on the 21st and 22nd inst.:—

ADAMS, JAS., M.R.C.S., Farmingham.
ALLEN, JOHN, M.R.C.S., L.A.C., L.M., Longton, Staffordshire.
ANDREWS, ONSLOW, M.R.C.S., L.A.C., Monmouth.
BLAKE, ROBT. H., M.R.C.S., L.A.C., London.
BLOXAM, WM., M.R.C.S., London.
BOUGE, EDWARD B., M.R.C.S., L.A.C., L.M., Newthorpe, near Nottingham.
BUCHANAN, JOHN H., Lanarkshire.
BUCKMASTER, WM., M.R.C.S., L.A.C., L.M., Co. Cork.
CHAPPELL, JOHN JAS., M.R.C.S., L.A.C., L.M., Axmouth, Devon.
CLARKE, JOHN, L.R.C.P., M.R.C.S., London.
COCKCROFT, MIDGLEY, M.R.C.S., L.A.C., Masham, Yorksh.
COGHLAN, JOHN J., M.R.C.S., London.
DAVIS, HENRY, F.R.C.S. by exam., L.A.C., London.
DOWNS, PETER, M.R.C.S., L.A.C., Stockport, Cheshire.
DYER, WM. GEO. T., M.R.C.S., London.
EAGLAND, WM. H., M.R.C.S., L.A.C., L.M., Guisborough, Yorkshire.
EMANUEL, LEONARD, M.R.C.S., London.
EVANS, NICHOLL, M.R.C.S., Stoke Newington.
FOREMAN, WILLIAM, Wigan, Lancashire.
FOX, LUTHER O., F.R.C.S., L.R.C.P. Ed., L.A.C., Broughton, Hants.
GOLDSMITH, JOHN, M.R.C.S., L.A.C., Hambledon.
GRAVES, FRED. G., M.R.C.S., L.A.C., Southam, Warwickshire.
HARRIS, WM. H., M.R.C.S., L.A.C., Her Majesty's East India Service.
HEGINBOTHOM, EDMUND, M.R.C.S., L.A.C., L.M., Calcutta.
HEMBROUGH, JOHN, F.R.C.S., L.A.C., Waltham, Grimsby.
HEPWORTH, WILLIAM B., M.R.C.S., L.A.C., Armley, near Leeds, Yorkshire.
HODGSON, JAS. B., M.R.C.S., L.A.C., Preston.
HURT, SAMUEL, M.R.C.S., L.A.C., Mansfield.
JONES, WM. G., M.R.C.S., L.A.C., L.M., St. Ann's Dispensary, Liverpool.
KITCHENER, THOS., London.
LAKE, WM. C., M.R.C.S., L.A.C., Teignmouth, Devon.
LEACH, JAS., M.R.C.S., L.A.C., L.M., Shaw, near Oldham.
LYNES, EDWARD, M.R.C.S., L.A.C., L.M., Coventry.
M'KEEVER, JOHN, M.R.C.S., Guy's Hospital.
MORRIS, JOHN P., M.R.C.S., L.A.C., Lewes, Sussex.
MORRIS, WILLIAM, M.R.C.S., London.
MURPHY, JOSEPH B., M.R.C.S., R.N., West Ella, Yorkshire.
OGDEN, JAMES, M.R.C.P., Manchester.
PATTULLO, WILLIAM, L.R.C.S. Ed., Alyth, Perthshire.
RATTRAY, JOHN, L.R.C.S. Ed., Lanarkshire.
RAWDON, HENRY G., M.R.C.S., L.A.C., L.M., Liverpool.
RIDINGS, JAMES S., M.R.C.S., Assistant-Surgeon in her Majesty's Indian Army.
RIDLEY, JOSEPH S., M.R.C.S., L.M., Heywood, Lancashire.
ROWDON, HENRY M., M.R.C.S., London.
SEDGWICK, LEONARD W., M.R.C.S., L.A.C., Boro' Bridge, Yorkshire.
SPENCER, HENRY B., M.R.C.S., L.A.C., Wantage, Berks.
TAYLOR, HENRY M., L.A.C., Manchester.
THOMAS, JOHN L., M.R.C.S., L.A.C., Pwllheli, Carnarvonshire.
WARD, HENRY D., M.R.C.S., L.A.C., L.M., Blyth, Northumberland.
WHITE, FRANCIS THOS., M.R.C.S., L.A.C., Rayreth, Essex.
WIGLESWORTH, THOMAS, M.R.C.S., L.M., Blakeney, Gloucestershire.

GUY'S HOSPITAL.—At the late Voluntary Examination at entrance in Classics, Mathematics, and Ancient and Modern History, the first and second prizes (£22 10s. each) were awarded to William Murdock and T. D. Welch, equal; and the third prize (£15) to A. G. P. Wilks. Honorary certificates were given to J. St. T. Clarke, T. Stevenson, Jos. Willes, and F. Woodman.

APPOINTMENTS.—Francis B. Quinlan, Esq., M.B. Trin. Coll. Dub., Surgeon to St. Vincent's Hospital, Dublin, has been appointed Professor of Materia Medica to the Catholic University of Ireland, in the room of the late Dr. R. Macdermott.

John A. Byrne, Esq., M.B. Trin. Coll. Dub., Senior Assist.-Physician to the Rotundo Hospital, Dublin, has been appointed Professor of the Theory and Practice of Midwifery to the Catholic University of Ireland.

William Moore, M.B., M.R.I.A., has been appointed Physician Extraordinary to Sir Patrick Dun's Hospital, Dublin.

COLLEGE OF DENTISTS.—Mr. James Robinson, of Gower-street, has engaged to present a medal of the value of ten guineas annually, to be competed for by students of the College.

TESTIMONIAL TO A SURGEON.—At a meeting of the inhabitants and others, held at the parochial school-rooms, Broadstairs, on Wednesday, the 19th instant, at which the Rev. C. F. Inwell, the incumbent, presided, a testimonial, consisting of a handsome timepiece, and a box containing 500 guineas, was presented to Mr. O. C. Walter, surgeon of that place. On the pedestal of the timepiece was the following inscription:—"Presented, with 500 guineas, to Odiarne C. Walter, Esq., as a token of sincere respect, esteem, and gratitude, from rich and poor in Broadstairs and the neighbourhood, for his generous and unwearied services during a period of twenty-five years. Oct. 1859."

PRIZE ESSAY.—The Medical Society of Amsterdam offers a gold medal, of the value of thirty ducats, for the best essay on the Physiology and Pathology of Scoliosis. The Society wishes for investigations respecting the muscles which can produce curvature, and those which may be brought into antagonism with them and promote a cure. Those muscles the active and passive motion of which may be of service, should be carefully pointed out; and it should be stated to what extent the energy of muscular action may be excited by electricity. The essays should be sent, free, before the 1st of May, 1861, to Dr. J. W. K. Tilanus, at Amsterdam; they must not be in the author's handwriting, and may be written in Dutch, German, French, English, or Latin. The name of the author to be placed in an envelope with the motto heading the essay.

BENEVOLENT BEQUESTS.—By the will of Mr. Henry Guy, of Hamlet House, Moulsham, recently deceased, £200 are left to the Essex and Colchester Hospital, and £600 to the Asylum for Idiots at Earlswood.

THE MEDICAL ASSOCIATION OF THE NETHERLANDS.—APPEAL TO THE MEDICAL SOCIETIES OF ALL NATIONS.—We have been requested by the President and Secretary of the above-named Association (Messrs. J. Van Gruns and J. P. Heije) to give publicity to the following appeal:—"It is very desirable, at the present period, that medical men should unite and act in concert, since they are immediately concerned with the most important interests of society; they will thus be able to work out improvements as to the repression of quackery and the practice of their profession, rendering the latter more and truly *salutifera*. Actuated by this belief, the Medical Society of the Netherlands (founded in 1848) has been nurturing, for some time past, the project of an international alliance, which would conduce to a regular exchange between the medical societies of all countries of every document bearing upon their government and labours. This exchange would include—1st, the laws, bye-laws, transactions, and other papers, hitherto published; 2ndly, the principal Bills and Acts concerning medical interests and practice. The Medical Association of

the Netherlands invites the societies of all other countries to send such papers (through booksellers), as soon as possible, to the Secretary, Dr. Heije, at Amsterdam. Compliance with this request will be immediately followed by reciprocity on the part of the Dutch Society; and the latter intends to publish annually a list of such societies as shall have responded to this appeal. The list will be accompanied by a sketch of the laws and transactions of these societies which shall have appeared to possess peculiar importance. The Dutch Society would be happy to propose an international congress, if such meeting were judged necessary for promptly and efficaciously obtaining reforms in the laws regulating the practice of medicine in different countries, such reforms tending to improve the position of the medical men with respect to the public at large, and to promote the welfare of communities in general. The Dutch Association is divided into twenty-six districts, and reckons more than eight hundred members, being one-third of all the medical men of Holland. The Central Committee holds its sittings at Amsterdam, and is composed of eleven members, taken from the country at large. Four of these members must reside in Amsterdam. Permanent sub-committees are entrusted with the following labours: 1, Statistics; 2, Topography and epidemiology; 3, Medical police and public hygiene; 4, The history of medicine. Occasional committees, acting temporarily, take cognizance of special subjects. Each district draws up its own laws, which, however, are blended with those of the general Association. In several districts a council of discipline has been founded. Assistance is granted to aged or sick medical men, and a widow fund has been established. Each district sends every year one member to the General Assembly, the seat of which is determined by vote. The Central Committee carries out the resolutions of the General Assembly, and represents the Association, with the Government and the Parliament. This Committee issues papers on the laws regulating the practice of medicine and public hygiene, and watches over professional interests. The Association publishes a weekly journal, which is the official organ of the Society."

WESTMINSTER COUNTY COURT.—MACDONALD v. AYCKBOURN.—In this cause, which was tried on Monday last, the plaintiff was a medical practitioner, of Coburg-place, Kennington-lane; and the defendant, a solicitor, of Lyon's-inn. The action was brought to recover the sum of £7 15s. for medical attendance upon the defendant's wife, from January 14th to March 27th, in the present year. The plaintiff and defendant had been on intimate terms for many years; and the defence rested on the ground that the plaintiff's services were to be given gratuitously. The plaintiff in evidence deposed that for ten or twelve years he had known the defendant, who had agreed to prosecute an action for the plaintiff to recover damages, gratuitously, or for the costs out of pocket. That action was commenced, but subsequently abandoned as of doubtful issue. In consideration of this, plaintiff told defendant he would do something in return in a professional way. He wrote prescriptions, sent some medicines, and gave attendance in a labour. Some attempt was made during the trial to attribute neglect to the plaintiff in respect of this attendance; but the allegation was not substantiated according to the report received by us. The charges of the plaintiff were made at the rate of 5s. per visit. Ultimately, his Honour ruled that as the plaintiff had admitted that he had offered his services gratuitously in the first instance, and had given the defendant no notice to put an end to that agreement, he did not think the plaintiff could recover. A verdict was accordingly entered for the defendant.

TESTIMONIAL TO RICHARD WOOD, ESQ., SURGEON, BIRMINGHAM.—We extract the following as the substance of a notice in the *Birmingham Herald* of the 29th of October, and in doing so may remark that Mr. Wood held the office of surgeon to the Birmingham General Hospital for upwards of forty years, and was in very high repute as an operating and consulting surgeon throughout the midland counties for the whole of that period:—"At a recent meeting of the members of the Circulating Medical Book Society, the following address was unanimously agreed to for presentation to Mr. Wood:—'Half a century having elapsed since your election as a member of the Birmingham Circulating Medical Book Society, we cannot allow this meeting to pass without expressing our approbation of the high and honourable bearing which has invariably characterized your conduct towards your fellow-practitioners, who must ever refer to the high standing to which very early in your career you attained, as a well-merited honour which you have borne and sustained with great credit and thorough gentlemanly deportment. We beg you to consider that your absence from our meeting is regarded as a great loss by the members of the Society, who unanimously and most cordially join in wishing you that happiness in your declining years which a well-spent life and an unstained conscience alone can confer. We regret that your present state of health has caused you to decline to allow us the privilege of entertaining you at dinner on the 29th inst., the fifty-first anniversary of the day of your election to this Society, and must therefore content ourselves with begging you will accept this slight, though sincere, expression of our regard.'"

THE WEATHER IN FRANCE.—Winter seems to have come with a bound. The thermometer went down to within five degrees of zero, (centigrade,) or to 41° Fahr.; and snow fell on Saturday at Havre, Caen, and Rouen.

GOOD EFFECTS OF TAKING MEDICAL ADVICE.—The authorities of the General Post-office, acting upon the suggestion of Dr. Lewis, the medical adviser to that department, have come to the determination of granting in future to the letter-carriers two coats, instead of one as heretofore.

NAVAL APPOINTMENT, OCT. 19TH.—Assistant surgeon Robert Creighton (additional), to the *Fisgard*.

LEPROSY IN CAPE COAST.—We understand that leprosy is exceedingly prevalent in the town of Cape Coast, and is spreading rapidly, so as to cause great alarm amongst the community.

THE NORWICH UNION: PAYMENT OF MEDICAL REFEREES.—In the last annual report of the directors of this Life Assurance Society, the following passage appears:—"The directors further report to the members that, after due deliberation, they have decided, in all cases of application for insurance where medical advice is required by the office, to pay a fee to the private medical referee whose opinion may be thought necessary for its protection." It is better late than never; and we hope to see all recalcitrant offices following an example like the foregoing, which is dictated simply by justice.

THE ALLEGED WHOLESALE MURDER OF CHILDREN.—At a meeting of the directors and guardians of the poor of the parish of St. Luke, Chelsea, held last week, the attention of the board was called to the question of the disposal of still-born children. Mr. Livingston desired to know if any means could be found to discover how these children met with their deaths, as the master's report assisted to prove the fact asserted by Mr. Wakley, the coroner, in regard to wholesale child murders. He thought it was of vast importance that a close scrutiny should take place into all such deaths.

PROTECTION OF ADULTERATION BY THE LEGISLATURE.—The *Daily Telegraph* of the 21st inst. remarks—"The Sanitary Commission instituted and carried out with so much ability and public spirit by THE LANCET was instrumental in attracting universal attention to the disgraceful system of adulteration which had been carried on for years with the most unblushing impudence and the completest impunity. It was confidently hoped for a time that the Government would at length feel it its duty to interfere, and prevent, by a stringent legislative enactment, the continuance of a barefaced fraud on the public, and a more reckless and dangerous tampering with their health; but, somehow or other, the Bills introduced into Parliament for the purpose of putting a stop to the adulteration of food have one by one fallen through; and, with the single exception of chicoried coffee, there is no article of domestic consumption which is thoroughly protected by the law."

ARREST OF DEVELOPMENT IN THE FŒTUS.—Mr. W. R. F. Lane, of Bethnal-green, has forwarded to us the following report of a case happening in his own practice:—Mrs. C——, of the Hackney-road, on Oct. 13th, gave birth to a daughter without forearms, hands, or legs, giving the appearance of having been amputated at the elbow joints, and the left leg above the knee. There is a short prolongation from the right knee of about two inches, with a small foot and one toe attached. The child, otherwise, is well formed, and likely to live. The mother says her sympathy was much excited in the early period of pregnancy by the sight of some cripples soliciting alms, whose arms had been amputated and who were otherwise deformed.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, OCTOBER 22ND.—The deaths last week were 910. There were 29 from small-pox, 35 from scarlatina, and 14 from diphtheria; with 31 fatal cases of diarrhœa, 2 of cholera, 1 of intermittent fever, and 7 of syphilis, all amongst infants.

NEW COURSES OF LECTURES IN "THE LANCET."

WE have the gratification of announcing in our advertising columns of this week the publication of two important Courses of Lectures: one of a strictly practical, professional character—viz., FEVERS—by a physician of greater experience in maladies of that description than any other practitioner in Europe, or probably in the world. The other Course relates to a subject of universal interest amongst all civilized people, and the task will be executed by a Lecturer, who, from his researches and writings, it may be truly said has made the subject his own.

MEDICAL DIARY OF THE WEEK.

MONDAY, OCTOBER 31.
- ROYAL FREE HOSPITAL.—Operations, 2 P.M.
- METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.
- MEDICAL SOCIETY OF LONDON. — 8 P.M. Mr. Bishop, "On the Mechanism of the Spine."

TUESDAY, NOV. 1
- GUY'S HOSPITAL.—Operations, 1½ P.M.
- WESTMINSTER HOSPITAL. — The following Operations will be performed at 2 P.M.:—For Stricture of the Urethra, by Mr. Holt; Removal of Diseased Breast, by Mr. Hillman.
- PATHOLOGICAL SOCIETY OF LONDON.—8 P.M.

WEDNESDAY, NOV. 2.
- MIDDLESEX HOSPITAL.—Operations, 1 P.M.
- ST. MARY'S HOSPITAL.—Operations, 1 P.M.
- UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M.
- ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 2 P.M.
- OBSTETRICAL SOCIETY OF LONDON. — 8 P.M. Mr. Dunn, "On Statistics of Midwifery from Private Practice."—Short papers by Dr. Barnes and Dr. Mackenzie.
- HUNTERIAN SOCIETY.—7½ P.M. Meeting of Council.—8 P.M. Mr. N. Ward, "On Cases of Injury to the Head."

THURSDAY, NOV. 3.
- ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
- CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 1 P.M.
- LONDON HOSPITAL.—Operations, 1½ P.M.
- GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2½ P.M.
- HARVEIAN SOCIETY.—8 P.M. Dr. C. T. Coote, "On Intercostal Neuralgia."

FRIDAY, NOV. 4
- WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
- WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.—7 P.M. Meeting of Council.—8 P.M. Dr. Fuller, "On the Treatment of Renal Anæsthesia."

SATURDAY, NOV. 5.
- ST. THOMAS'S HOSPITAL.—Operations, 1 P.M.
- ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
- KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
- CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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THE LANCET *may be obtained from every respectable Bookseller or Newsman in the World.*

To Correspondents.

WE have received communications, making great complaints of the mode in which the business was conducted at the late meeting of the National Association for the Promotion of Social Science at Bradford. The *Bradford Observer* remarked:—

"It is much to be regretted that many valuable papers were omitted through pressure of time. It is hinted that some contributions were accepted which should never have been countenanced by such a Society; consequently the inferior ones took up the time of those which may be considered by omission a loss to the public; but the Council will guard against this in future."

It is alleged that there was great want of good management in the various sections with regard to the reading of papers. Each day's business should have been got through in the order announced; but at Bradford the papers which were left unread on Tuesday were put forward on Wednesday, and so on each day, so that by Friday (the last day) they were so much in arrear with the papers that only one or two of those on the list for that day could be read in each department. Amongst the papers which thus escaped attention were the following, in the Department of Public Health:—

Mr. C. Baker, "Vital Statistics, and Distribution of Deaf and Dumbness in England and France."

Rev. J. Fawcett, "The Use of Intoxicating Drinks not Necessary to Workmen engaged in Mines and at Forges."

Mr. C. H. Bracebridge, "The Ventilation of Ships."

Mrs. M. A. Baines, "The Practice of Hiring Wet-nurses, especially those from the 'Fallen,' considered as it affects Public Health and Public Morals."

Mr. G. V. Vernon, "The Meteorology of Scarlatina."

The foregoing were on the list for Friday, but were not read from want of time.

Dr. R. U. West.—A proof shall be sent of his admirable Report.

"SURGEON"-DENTISTS.

To the Editor of THE LANCET.

SIR,—Have we not in the ventilation of this argument omitted facts which may illustrate, and introduced subjects which do not further the object of all discussion, truth? Is not undue stress laid upon the exemption in the 55th Section of the Medical Act in favour of dentists, the question raised here being not as to their "lawful occupation, trade, or business," but rather as to the *title* whereby such occupation or business is designated?

The preamble of the Act is worthy of attention in seeking a solution of our difficulties. It declares the expediency of enabling persons requiring medical aid "to distinguish qualified from unqualified practitioners." Now, no one requiring medical aid would seek advice from a surgeon-dentist, and it is plain that no dentist can in respect of a qualification, *qua* dentist, be registered in conformity with the 15th Section of the Act. He is, therefore, in terms excluded from the class comprised in the preamble, or, as the lawyers have it, he is not within the purview of its general enactments. I quote a portion of the 40th Section, the penal clause, as I shall allude to it more in detail—"Any person who shall wilfully and falsely pretend to be, or take or use the name or title of a.....surgeon, or any name, title, addition, or description, implying that he is registered under this Act, or that he is recognised by law as a.....surgeon or practitioner in medicine, &c., shall," &c. Does the surgeon-dentist by the use of this designation thereby "pretend to be a surgeon"? I think not. Would he have it implied "that he is registered under the Act"? The terms involve an inquiry for the meaning of the word "registration:" from the Act itself, and by the registering clause and its schedule, we find that as a dentist he cannot "be registered." Does he lead me to believe "that he is recognised by law as a surgeon"? Language is useless if such should be a result, seeing that he only requires to be recognised as a surgeon-dentist. However, he "takes or uses the name or title of a..... surgeon." True. Does he "wilfully and falsely" pretend to do this, and is his use of the name "surgeon" anything more than an epithet, such a use as is had recourse to in our expressions, a sailor-king, a virgin-queen, a man-milliner, and the like? A very enterprising perruquier in the City styles himself a professor; it may add to the dignity of his art to prefix surgeon to his mystery, and it would be difficult in the case of a surgeon-perruquier to distinguish the penalties incurred by him, from those to which the surgeon-dentist would be obnoxious, if the interpretation of the Act by the London Medical Registration Association be correct. Your obedient servant,

October, 1859. C. C. C.

Mr. W. M. Warcup.—The new Charter has not yet been granted. Due notice of its appearance will be given in THE LANCET.

Mr. Pye H. Chavasse.—The subject shall be noticed next week; but as we are not in the habit of inserting communications that have appeared in other journals, we cannot reprint the correspondence between Mr. Chavasse and Dr. Barker.

M. F. should apply to Mr. Moore, of Tower-hill.

EXAMINATION BY THE EDINBURGH COLLEGE OF PHYSICIANS.

To the Editor of THE LANCET.

SIR,—I am a candidate for the diploma of the Edinburgh College of Physicians, a M.R.C.S. Eng. and L.S.A., with a dispensary workhouse, fever hospital, other public institutions, and some practice to look after; yet, notwithstanding the inconvenience and expense attending the journey to Edinburgh, I would not have been a candidate so long as the diploma was given without examination. I should feel annoyed, indeed, if the old apothecaries here, who never saw a dissection nor attended a lecture on anatomy or surgery, could be, by means of a short correspondence, on equal terms with us; besides, these diplomas, obtained by sending a remittance merely, are more a reproach than a benefit to the holder in the eyes of the public, amongst whom the circumstance, as a bit of scandal, is soon circulated. I therefore differ from "Medicus" in his views contained in your number of the 1st instant, and it is easily to be seen how much the Royal College of Surgeons of Ireland has been taken down by the sale of its fellowships in 1844. Your obedient servant,

October, 1859. MEDICUS HIBERNICUS.

WOULD *M.R.C.S.*, (Cheltenham,) who writes to us on the assumption of medical titles by unqualified persons, object to append his name to his late communication sent to us for publication?

An Old Practitioner, &c., should make application to the Secretary of the Russian Embassy.

THE examination papers of Oxford, St. Andrews, and other Universities, have been sent to us; but we regret that we cannot find space for their insertion.

THE NAVAL MEDICAL WARRANT.

To the Editor of THE LANCET.

SIR,—I beg to corroborate in every particular the statements of your correspondent, "N.R.," in your impression of October 15th, respecting the want of faith shown by the present Admiralty in the carrying out the provisions of the Naval Medical Warrant. I would earnestly caution students not to be deluded by what appears on *paper*, but to believe in the *facts* stated by your correspondent, and to pause before they enter a service, the governing body of which has recourse to every petty, low subterfuge to evade the fulfilment of what is now the law of the land, as laid down by her Majesty in Council, and is at best but simple justice.

I have reason to know that the widow in question is about to appeal to the legal tribunals of her country for that amount of pension which their lordships of the Admiralty so unjustly withhold; and at the forthcoming session of Parliament I feel certain that the noble-minded Sir J. Pakington and our many friends in the House of Commons will not fail to represent the mean, unjust, and impolitic conduct of the present Board of Admiralty. I trust that you, Sir, in your editorial capacity, will, as you have always done, state the facts as they really are to medical students, and not allow them to enter a service under the impression that the provisions of her Majesty's Warrant of May last are carried out. I am, Sir, your humble servant,

Dublin, October, 1859. SURGEON R.N.

Such is Life, (Wolverhampton.)—Mr. Pope may not have been concerned in publishing the highly objectionable paragraph which appeared in the *Wolverhampton Chronicle*.

Londinensis.—We think the assumption of the titles in all the cases mentioned is strictly just. We never heard that the privilege of doing so was ever disputed until the new Act came into operation.

Mr. Whalley's communication has been received, and shall be inserted.

CHASSAIGNAC'S DRAINAGE TUBES FOR ABSCESSES.

To the Editor of THE LANCET.

SIR,—I should be glad to know from some of your correspondents who have employed them, the *exact mode* of using "Chassaignac's Drainage Tubes for Abscesses." I procured some from Messrs. Weiss and Son, but have not been able to use them with success. The nature of the abscess, the absolute necessity or otherwise of a counter-opening, the mode of introduction, &c., are points on which I should be glad of information.

I am, Sir, your obedient servant,

Hull, October, 1859. H. S.

WE have before us a communication signed *Judex*. It calls attention to the fact that Dr. Herbert Barker, of Bedford, in the course of last year seconded a motion at a meeting of the South Midland Branch of the British Medical Association, strongly denunciatory of meeting homœopathic practitioners in consultation. After this the letter states that in the course of last month Dr. Herbert Barker did himself "meet the only homœopathic practitioner in Bedford in consultation;" and it asks if such was consistent professional integrity. He is a member of the committee on Medical Ethics appointed last year at Edinburgh, to say nothing of his having seconded and signed the resolution in question! Is the conduct of Dr. Barker misrepresented by our correspondent?

PHTHISIS.

To the Editor of THE LANCET.

SIR,—Can any of your readers inform me what is the best treatment, to effect a cure, for the above? Saline purgatives, diaphoretics, quinine, and steel, temporarily alleviate. The extract of nux vomica has done good, but it cannot be borne by the system; neither can arsenic.—I am, Sir, yours, &c.,

October, 1859. ETHOMA.

Inquirer.—The 40th Clause of the Medical Act provides for the case in question. The lines in italics are very comprehensive in their meaning:—

"It shall be lawful for the General Council by special orders to dispense with such provisions of this Act or with such part of any regulations made by its authority as to them shall seem fit, in favour of persons now practising medicine or surgery in any part of her Majesty's dominions other than Great Britain and Ireland by virtue of any of the qualifications described in Schedule A; and also in favour of persons practising medicine or surgery within the United Kingdom on foreign or colonial diplomas or degrees before the passing of this Act; *and also in favour of any persons who have held appointments as surgeons or assistant-surgeons in the Army, Navy, or Militia, or in the service of the East India Company*, or are acting as surgeons in the public service, or in the service of any charitable institutions, and also, so far as to the Council shall seem expedient, in favour of medical students who shall have commenced their professional studies before the passing of this Act."

Rebecca.—There can be no mistake if the certificate be dated on the day of vaccination, provided the *result* be stated.

A CORRESPONDENT informs us that the Reverend Dr. Willis Moseley is still alive.

A QUERY.

To the Editor of THE LANCET.

SIR,—Can a medical man, who is only a member of the College of Surgeons of England, legally undertake to attend the members of a Society for mutual relief in sickness, and provide them with medicines in medical cases?

I remain, Sir, yours, &c.,

October, 1859. INQUIRER.

*** There is no law to prevent him entering into such a contract.—ED. L.

Manchester should put the questions propounded to some one of the many respectable surgeons in his own town. The questions, in the way in which they are put, do not admit of answers in our pages.

MEDICAL TITLES.

To the Editor of THE LANCET.

SIR,—The case of Fitz Patrick *v.* Hallows, recently decided at Liverpool, is highly important as bearing upon the question, lately under discussion in your pages, of the assumption of medical titles. Many persons entertained the idea that being registered, it would not be in contravention of the Medical Act to assume any medical title they chose, whether their diploma or diplomas authorized them so to designate themselves or not. The above case will suffice to dissipate that error. It will also, unless reversed, render it incumbent on gentlemen practising on the ground of being in practice before August, 1815, and having no surgical diploma, to discontinue the word "surgeon" as descriptive of their status. Being in practice before 1815 exempts them from the penal clause of the Apothecaries Act, and authorizes them, if registered, to act and call themselves apothecaries or practitioners of medicine, but nothing more. The assumption of the title of "surgeon" formerly, not being prohibited by law, could not be prevented; but under the Medical Act such unauthorized assumption is made penal.

The decision in the above case merits the attention of those gentlemen who have, perhaps unwisely, expended their money on the purchase of the license of the Royal College of Physicians of Edinburgh, whose reprehensible dereliction of duty, as a public body entrusted with the guardianship of the honour and credit of the profession, first gave occasion for canvassing the subject of the assumption of titles. The grant of the licence on the, perhaps interested, testimonials of the recipient's friends has been rebuked by the Medical Council; but the security of the public against the licence being conferred on incompetent parties is but little increased by the little-go examination in medicine now required of candidates, which, from the status and acquirements of some parties recently licensed, cannot be a severe test, or they must have been leniently dealt with. This elevating of common-place men to the position of (legal) physicians, from mercenary motives and by pecuniary agency, is felt to be unjust towards their neighbouring competitors, engaged, like themselves, in general practice; and it is the assumption of the doctorate by these gentlemen, who still act as general practitioners, which has given occasion to the discussion of their *right* to use it. Graduates would still, I doubt not, concede the title of "doctor," by *courtesy*, to all licentiates or members of Colleges of Physicians, practising as such; but I do not consider parties engaged in general practice are entitled to expect the like indulgence, especially when the conditions upon which their timid honours were conferred upon them are taken into consideration. If the mere purchase of a trumpery bit of parchment—for such is a just description of the year-of-grace licence of the Royal College of Physicians of Edinburgh—is to place a man in the same honourable position as the M.D., whether of Oxford, Cambridge, or London, the latter will certainly have good grounds for feeling themselves injured. These are, notwithstanding the dictum of your correspondent of last week, physicians, and something more, and it is this "something more" that the new physicians, of the peculiar stamp above referred to, so anxiously court, and so unscrupulously appropriate to their own use. The right to do so must sooner or later come under discussion in the courts of law, otherwise the cause of education will be seriously damaged; for who will work hard for honours and distinctive titles that can be had for the asking, or bought at a small cost, or even assumed at pleasure without authority? Some of the year-of-grace men have prudently not yet assumed the doctorate in public, and possibly some who have will feel the mortification keenly should the legal tribunals decide they are contravening the law by using titles they have no right to, and must cease to use them under penalty of fine, &c. I am, Sir, yours, &c.,

October, 1859. IGNOTUS.

To the Editor of THE LANCET.

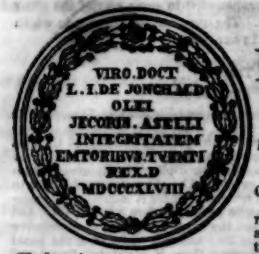
SIR,—I was not unprepared for the attacks which some of your correspondents have made upon me, and who, from the tone of their writing, are evidently apothecaries. Chinese-like, fighting behind *masked* embrasures, their logic is as unsound as their *false* assumption of titles is illegal. Without replying *seriatim*, which would prove irksome to your readers, I may state my opinion, which I am sure will be endorsed by *every honourable* member of our profession, that an apothecary is not a surgeon—*ergo*, has no right, *morally* or *legally*, to call himself such, and thus impose upon the public. In doing so he acts dishonestly, shirks an examination at a College of Surgeons, and defrauds such College of its just fees. What are we to call ourselves? ask these worthies. Let me advise the *alumni* of Blackfriars to follow the example of their equally well educated but more honest brethren in Ireland, and call themselves *what they only are*, "apothecaries," or, if they prefer it, better follow the example of *their* object of sympathy, Mr. J. S. Hallows, "legally-qualified medical practitioner," whose circular I enclose.—I am, Sir, yours very truly,

W. HOWNER FITZ PATRICK, M.R.C.S. Eng.

Knotty Ash, Lancashire, October, 1859.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Coghill; Dr. Savage; Dr. Ogilvie; Mr. Nourse; Mr. Tarleton, Birmingham; Mr. Parsons, Etruria; Mr. A. Smith; Mr. Stocker; Mr. Fitz Patrick; Mr. H. C. Stewart; Dr. Henry H. O. Hay; Dr. R. U. West; Mr. Warsop, East Dereham; Mr. Flower; Mr. Aynott Chitty; Mr. F. Glenton; Mr. B. Pitt; Mr. Perkins; Mr. J. H. Jackson; Mr. R. Ellis; Mr. Lawton, Rochdale, (with enclosure;) Mr. Furnivall, Hutton, (with enclosure;) Mr. Williams, Watchet, (with enclosure;) Mr. Johnson, Dudley, (with enclosure;) Mr. Taylor, Bradford, (with enclosure;) Mr. Clarke, Greenwich, (with enclosure;) Mr. Harrison, Nottingham, (with enclosure;) Mr. Doble, Paisley, (with enclosure;) Mr. Langston, Strood, (with enclosure;) Mr. Macpherson, Great Yarmouth, (with enclosure;) Mr. Bryden, Mayfield, (with enclosure;) Mr. Dawes, Oldbury, (with enclosure;) Mr. Obbed, (with enclosure;) Mr. Barrow, Yoxall; Mr. Powell, Tewkesbury, (with enclosure;) Mr. Sandell, Potton, (with enclosure;) Mr. Beresford, Langharne; Mr. Young, Steyning, (with enclosure;) Mr. Dalrymple, Norwich; Mr. Sellers, Rochdale; Mr. Lownds, Walker, (with enclosure;) Mr. Hall, Torquay; Mr. Clarkson, Lancaster; M.R.C.S., Wickhambrook, (with enclosure;) Zebedee; Medicus Hibernicus; M.R.C.S., Cheltenham; H. S.; Enquirer, Belper; C. C. C.; An Old Practitioner and Subscriber to THE LANCET; &c. &c.

THE *Staffordshire Advertiser*, the *Northern Daily Express*, and the *Stockport and Cheshire County News*, have been received.



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OPINION OF

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Cod-liver Oil with Quinine.
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Finest *new* Newfoundland Oil, 12s. gn. Quinæ Disulp. 6 oz., 6s. 6d. oz. Potas. Iodid., 13s. lb. Liq. Sarzæ Concd., 5s. 6d. and 10s. 6d. Liq. Taraz., 6s. lb.—Monthly price currents on application.

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(Limited), 49, Berners-street, London, and 4, Colquit-street, Liverpool, continues to supply the Profession with the purest Drugs and Chemicals.

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A new Number of the "Record of Pharmacy and Therapeutics," containing an account of many new Remedies, will shortly be published.

Communications addressed to the Manager, HENRY F. HOMB, 49, Berners-street, London, will receive immediate attention.

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CONDY'S PATENT HEALTH POWDER also contains nascent OXYGEN, is odourless, and destroys all smells. Sold in bottles, 1s. 6d. and 3s.; and in casks, 1 cwt., 30s. Wholesale Agents, John Bell and Co., Chemists, 338, Oxford-street; Savory and Moore, New Bond-street; Butler and Crispe, 4, Cheapside; W. Twinberrow, 2, Edwards-street, Portman-square; and Twinberrow and Co., Chemists, Worcester.—Chemical Works, Battersea, S.W.

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Liquor Potassæ Permanganatis

(CONDY). Gr. ij. ad ℥1.

LIQUOR MAGNESLÆ PERMANGANATIS
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Solutions of purified Permanganate, for internal or external use. ANTISEPTIC and TONIC. Internally: Dose, from ten drops to a drachm in half-a-pint of pure water. Externally: As a Lotion or Gargle, from one to four drachms in half-a-pint of pure water.

The introduction of Condy's Patent Fluid having been attended with the greatest success, and the Medical Profession having expressed a desire for a Salt of Permanganic Acid adapted for medicinal use, the attention of the Profession is respectfully drawn to the above Solutions of Permanganates, of uniform strength.

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Pepsine.—M. Boudault begs to state,

that he cannot be answerable for the purity and strength of any preparation sold under his name, unless obtained from his Sole Agent, Mr. PETER SQUIRE, Her Majesty's Chemist, 277, Oxford-street, London, to whom all applications respecting it must be addressed.

Second Edition of Boudault on "Pepsine," with remarks by English Physicians; edited by W. S. SQUIRE, Ph.D. Published by J. Churchill, London. May be also had of the Author, 277, Oxford-street. Price 6d.

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PHOSPHATE of IRON and LIME. New Remedial Agents introduced to the notice of the Profession at the Meetings of the Medical Society of London, and now extensively employed by the most eminent members of the Medical Profession. The Syrup is the most eligible mode of administering these valuable Remedial Agents. Mr. GREENISH will be happy to forward a variety of cases which have been furnished to him, where its success has been most marked, and which will serve to indicate where it may be most advantageously employed.—20, New-street, Dorset-square.

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